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ABSTRACT

Suggesting implications for career education program development and revision, this document is one in a series of five publications reporting results of a career development needs study of four different age levels. In this document, the assessment of career development needs of thirteen-year-olds is presented in three major sections. Section 1 presents an overview of the National Assessment of Career and Occupational Development (COD), explaining the rationale, objectives, exercises, assessment samples, subpopulation data, and possible uses of the career development needs series. Section 2 presents the collected data on career development needs of thirteen-year-olds. The results are summarized and program implications are suggested under five broad objectives: prepare for making career decisions; improve career and occupational capabilities; possess skills that are generally useful in the world of work; practice effective work habits; and have positive attitudes toward work. Also organized by these five objectives, section 3 provides a more detailed description of the COD assessment data, including statistical tables. (BM)

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ED147498

CAREER DEVELOPMENT NEEDS OF THIRTEEN-YEAR OLDS:

HOW TO IMPROVE CAREER DEVELOPMENT PROGRAMS

Prepared for the
National Advisory Council for Career Education

By

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NVGA-AMEG Commission on National Assessment's
Career and Occupational Development

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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National Advisory Council for Career Education, August 1977

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PREFACE

A considerable portion of each agenda of the National Advisory Council for Career Education is devoted to assessing the various means by which the identifiable knowledge gaps in career education can be closed. The result has been the commissioning of two series of papers on a wide variety of topics. Several of the papers from the first series were published in 1976, e.g., those dealing with the emerging history and the efficacy of career education.

A second series of papers were commissioned in 1976, again, on a broad number of career education concerns. The document in your hands is one of those submitted to the Council in either late 1976 and early 1977.

At the April 6, 1977 meeting of the Council, a substantial amount of time was spent discussing these papers. A motion was passed unaminously to reflect the position to which the Council strongly adheres, namely, that it is healthy to have different points of view on career education and that the promotion of these differing views is a very positive step in the life of career education. We sincerely believe that the dissemination of these papers is, indeed, a very salutary action in the furtherance of the career education debate.

This does not and should not imply that the National Advisory Council for Career Education accepts and endorses all the concepts, ideas, suggestions and recommendations in the papers we are now disseminating. We disagree with opinions expressed in several of these papers. This document, rather, reflects the realization that the Council has identified certain goals and issues and that we wish to make available for reading, and, to be sure, thought-provoking discussion, this set of commissioned papers which directly explore these goals and issues.

Our intent, as we have indicated, has been to close some of the existing knowledge and philosophical gaps in the field. We trust this document will contribute toward that end.

George F. Meyer, Jr.
Chairperson

May 20, 1977

PREFACE

This publication is one of a series which was developed by the NVGA-AMEG Commission on National Assessment's Career and Occupational Development (COD). The Commission was formed in 1974 under the leadership of Frank Womer, who was at that time president of AMEG, because of his belief in the importance of National Assessment's COD results for the design of career development programs. During that year, the joint Commission was formed with Frank Womer as AMEG Chairperson and Thelma Vriend as NVGA Chairperson. In July of 1974, a formal proposal of approval for the Commission's efforts was submitted to APGA and official approval was obtained from the APGA Board of Directors.

From 1974-76, the Commission members, which include Frank Womer, Thelma Vriend, Marjorie Mastie and Ronald Pollack, worked in consultation with others such as Ralph Bohn, Donald Super, and Doris Jeffries to identify writing teams and to coordinate efforts with the National Assessment Project staff. Two writing teams were organized: The Age-Level Team with Juliet Miller (Editor), Roger Aubrey, Anita Mitchell and Bert Westbrook, and the Developmental-Oriented Team with Dave Tiedeman (Editor), Martin Katz, Anna Miller-Tiedeman, and Samuel Osipow.

In June of 1976, the Commission, working cooperatively with APGA, obtained funding from the National Advisory Council for Career Education chaired by Bruce Shertzer. At that time, writing of the publications was initiated. Throughout the project, major support

and assistance have been provided by the National Assessment staff including: Roy Forbes, Director; Gloria Frazier; Don Phillips; Barbara Ward; and Ken Seaman. Also, Charles Lewis and Frank Burtnett of APGA provided encouragement and administrative coordination.

This series of publications, developed through the efforts of the NVGA-AMEG Commission on National Assessment (COD), is the result of recognition by the many individuals involved of the importance of using information about the career and occupational development status of youth and adults as the basis for the design of career development programs. The intent of the publications is to present National Assessment's COD results, and to suggest implications of these results for current practice. The series is designed to stimulate the development and revision of programs based on career development needs as indicated by the assessment data. It provides information which is useful to counselors, counselor educators, teachers, educational decision-makers, and government policy-makers.

Juliet V. Miller
Age Level Editor

Ann Arbor, Michigan
February, 1977

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Correctly Identify Occupational Work Requirements
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Interpersonal Skills
Employment-Seeking Skills

Objective IV: Practice Effective Work Habits
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Objective V: Have Positive Attitude Toward Work
Recognize the Basis of Various Attitudes Toward Work
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SECTION I

OVERVIEW OF THE NATIONAL ASSESSMENT CAREER AND OCCUPATIONAL DEVELOPMENT ASSESSMENT

WHAT IS NATIONAL ASSESSMENT?

National Assessment of Educational Progress (NAEP) was initiated in 1964 as a response to the need to look at the outputs as well as the inputs of education. The project goals include collection and reporting of information about specific educational achievements of young people in the United States, detection and reporting of changes in that achievement, and encouragement of states and educational policy makers to apply the new data to the solution of specific problems in education.

NAEP surveys the educational attainments of four age groups: Nines, Thirteens, Seventeens and Adults (ages 26-35). These age groups represent educational milestones attained by most students. Nines have been exposed to the basic program of primary education; Thirteens have finished their elementary school program; and Seventeens are completing the high school program. Seventeens also include a sample of out-of-school youth. Adults represent a group who have completed their formal education and have been away from school for a number of years.

Ten educational areas are assessed in five-year cycles. These areas are: art, career and occupational development, citizenship, literature, mathematics, music, reading, science, social studies and

writing. Each five-year cycle includes the following steps: development and review of objectives by subject matter specialists and educators, development and field testing of exercises to measure the objectives, administration of exercises to national samples at the four age levels, and data analysis and interpretation.

OVERVIEW OF THE CAREER AND OCCUPATIONAL DEVELOPMENT AREA

Rationale for the "Career Development Needs" Series

The first NAEP Career and Occupational Development (COD) assessment was administered during the 1973-74 school year to a national sample representing the four age levels. This "Career Development Needs" series contains four publications. Each publication provides an overview of the NAEP-COD results for one of the four age levels: Nines, Thirteens, Seventeens, or Adults. This series is intended to provide a summary of the COD results which will help educators gain a better understanding of the current status of a particular age group on specific career and occupational development objectives. In addition, each publication draws implications of the COD results for career development programs suggesting types of learning experiences which might facilitate increased achievement on the specific objectives. The broad goal of each publication is to provide a stimulus for local educators as they assess the needs of their own students and design career development programs to meet these needs. Hopefully, these publications will trigger discussion and program planning by providing a summary of the COD assessment results.

The Objectives

The development of COD objectives and exercises was completed by the American Institutes for Research under contract with NAEP. The COD assessment used exercises to measure the following objectives and sub-objectives:

I. Prepare for making career decisions.

- A. Know own characteristics relevant to career decisions.
- B. Know the characteristics and requirements of different careers and occupations.
- C. Relate own personal characteristics to occupational requirements.
- D. Plan for career development or change.

II. Improve career and occupational capabilities.

III. Possess skills that are generally useful in the world of work.

- A. Have generally useful numerical skills.
- B. Have generally useful communication skills.
- C. Have generally useful manual-perceptual skills.
- D. Have generally useful information-processing and decision-making skills.
- E. Have generally useful interpersonal skills.
- F. Have employment seeking skills.

IV. Practice effective work habits.

- A. Assume responsibility for own behavior.
- B. Plan Work.
- C. Use initiative and ingenuity to fulfill responsibilities.
- D. Adapt to varied conditions.
- E. Maintain good health and grooming.

V. Have positive attitudes toward work.

A. Recognize the bases of various attitudes toward work.

B. Hold competence and excellence in high regard.

C. Seek personal fulfillment through own achievement.

D. Value work in terms of societal goals.

This is the total range of objectives used in the COD assessment. Not all sub-objectives were assessed for each age level. Each publication in this series describes the specific sub-objectives assessed at that age level.

The Exercises

The exercises were extensively reviewed and tested prior to the actual assessment, and were developed in consultation with educators, career development specialists and lay persons. The exercises are a unique aspect of NAEP since, in addition to multiple choice items, NAEP uses other exercise formats such as open-ended questions and individual performance items.

In any NAEP assessment, 40-60% of the exercises are released to the public while one-half remain unreleased so that they can be used again in future assessments. This series reports only the results for the released COD exercises. Therefore, each publication describes the actual exercises, and those individuals who are interested in using the exercises locally can obtain copies of the exercises complete with scoring instructions by ordering the Career and Occupational Development Technical Report: Exercise Volume (see p. 12).

It is important to note that the exercises are, in most cases, administered to more than one of the four age groups thus allowing

cross-age comparisons. While the four publications in the "Career Development Needs Series" do not make comparisons across age levels, the NVGA-AMEG publication by Tiedeman, Katz, Miller-Tiedeman, and Osipow (see p. 11) is focused specifically on this type of comparison.

The Assessment

NAEP administers exercises to national samples at each age level. Exercises are administered in packages which contain several exercises and which can be administered in a reasonable time period. COD packages were administered to a national sample which was stratified by region of the country, size of the community and socioeconomic level. The administration of the COD assessment was administered by the Research Triangle Institute, Raleigh, North Carolina, and scored by the Measurement Research Center, Iowa City, Iowa. About 100,000 respondents were sampled in the 1973-74 assessment. However, not all respondents took all exercises. For example, more than 35,000 Thirteens participated in the assessment but only 2,200-2,700 Thirteens responded to any one of the exercise packages. The total number of respondents included in each age group was approximately as followed: Nines--28,000; Thirteens--38,000; Seventeens (in school)--34,000; Seventeens (out of school)--1,000; and Adults--2,000.

The Sub-Populations

The COD assessment was administered to a national sample of each of the four age level groups. However, data analysis was completed not only for the total national group at each level but also for several sub-populations. These sub-populations are:

Sex

Results are presented for males and females.

Race

Results are reported for blacks, whites and others.

Region

Results are reported for four regions: Northeast, Southeast, Central and West. The states that are included in each region are shown in Figure 1.

See Figure 1, p.127

Parent Education

Four categories of parental education are defined by NAEP. These categories include: (1) No-HS--those whose parents have had no high school education; (2) Some-HS--those who have at least one parent with some high school education; (3) Grad-HS--those who have at least one parent who graduated from high school; and (4) Post-HS--those who have at least one parent who has had some post high school education.

Size and Type of Community

Community types are identified both by the size and location of the community and by the type of employment of the majority of people in the community. These include: (1) high metro--areas in or around cities with a population greater than 200,000 where a high proportion of the residents are in professional or managerial positions; (2) low metro--areas in or around cities with a population greater than 2,000 where a high proportion of the residents are on

welfare or are not regularly employed; (3) extreme rural--areas with a population under 10,000 where most of the residents are farmers or farm workers; (4) urban fringe--communities within the metropolitan area of a city with a population greater than 200,000 outside the city limits and not in the high or low metro group; (5) main big city--communities within the city limits of a city with a population over 200,000 and not included in the high or low metro groups; (6) medium city--city with population between 25,000 and 200,000; and (7) small places--communities with a population of less than 25,000 and not in the extreme rural group.

Throughout this "Career Development Needs" series, sub-populations are reported when the results indicate that a sub-population is significantly different from the total national group. This means that while sub-population differences are not comprehensively reported, important differences have been highlighted.

The Data

The NAEP-COD assessment is an objective-referenced assessment. This means that the results are reported in percentages of the total group or specific sub-group which gave acceptable responses for a specific exercise related to a specific career and occupational development objective. No attempt is made to summarize overall COD performance for individuals. The COD results are helpful in providing insights into the current achievement levels of specific groups on each of the measured objectives.

The "Career Development Needs" series reports P-values for various exercises. The P-values are weighted estimates of the total population percentages. Thus, for example, a statement that, "90% of Nines gave an acceptable response," means that 90% is an estimate of all Nines in the United States who would have given an acceptable response if the total population has been assessed.

Publications in this series also report sub-group differences from the total group. For example, statements such as, "Females scored higher than the total group," are made throughout the reports. Throughout the tables, significant differences are indicated with asterisks (*). Standard errors were computed for each P-value. Sub-group differences are considered to be significant if the obtained differences between the sub-group and the total group was at least twice as large as the estimate of the standard error. This means that asterisks indicate that there is a 95% probability that a difference between the total group and the sub-group actually exists. It is important to note, however, that when these sub-group differences are reported, the causes for the differences in achievement levels cannot be ascribed solely to membership in a particular group. Each respondent is a member of many groups. NAEP results do not provide direct evidence of causal relationships.

USES OF THE "CAREER DEVELOPMENT NEEDS" SERIES

At the present time, there is considerable interest on the part of local school districts, adult education programs, and educational associations in developing career development components

for career education programs. Crucial to the development of quality programs is an understanding of the current career and occupational development status of students within the educational system. Local school districts are attempting to develop goals for these career development programs, but these goals are difficult to establish without baseline information. The central program development questions are, "What is the current achievement level of specific student groups on career development objectives?" and "What are the implications of those data for designing career development programs?"

The "Career Development Needs" series is designed for groups of program planners at the local school building level and professional groups interested in career development at the specific age level. You should consider the following guidelines as you use these publications.

1. Select Relevant Objectives--Each publication overviews the results related to each of the five broad COD objectives and sub-objectives within the broad objectives. You probably will find some objectives and/or sub-objectives more relevant to your own program priorities. Review the objectives on pages 3-4 and select those which are most relevant for you. Use this list to guide you as you review the data analysis and implications sections of the publications.
2. Review the Exercises--As the results are presented, each exercise is described. It will be important for you to review the nature of each exercise to determine whether it is measuring an aspect of the objectives which is important for you. This can be done

by comparing the exercises to your current curriculum materials and to your existing program objectives.

3. Decide Whether to Collect Local Data--The COD results are for a national group rather than local groups. They are helpful in providing an overview of the current achievement level of the total national group and sub-groups within the total group. By focusing on specific sub-groups such as geographic region or parental educational level, you can identify groups more similar to your own student group than the total national group. However, you will also want to consider the possibility of using the COD exercises with your own students to collect local data. The COD exercises reported in these publications are released and are available in the Career and Occupational Development Technical Report: Exercise Volume (see p. I2).

4. Overview Relevant Results--Once you have selected objectives and/or sub-objectives relevant to your local program, it will be helpful if you overview the results for these objectives in the data analysis section of the publication. This will help you understand percentages (P-values) for the total group and will highlight important sub-group differences.

5. Use the Implications as a Stimulus--The COD results are question raising in the sense that they provide important information about the current achievement level of students on COD objectives. Throughout the implications section, you will find a number of suggestions about types of career development activities which the COD results indicate are needed at the present time.

However, these implications are intended to trigger your thinking rather than to be inclusive of all possible program suggestions. You are encouraged to use the implications as a stimulus to help you develop further ideas for career development program activities.

OTHER COD ASSESSMENT RESOURCES

NVGA-AMEG Series

This publication is one in a series of publications developed by the NVGA-AMEG Commission on National Assessment with support from the National Advisory Council on Career Education and the National Assessment Project. These publications are available from: Publication Sales, American Personnel and Guidance Association, 1607 New Hampshire Avenue, N.W., Washington, D.C. 20009. Publications in this series include:

Miller, J. M., Career Development Needs of Nine-Year Olds: How to Improve for Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Aubrey, R. F., Career Development Needs of Thirteen-Year Olds: How to Improve for Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Mitchell, A. H., Career Development Needs of Seventeen-Year Olds: How to Improve for Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Westbrook, B. W., Career Development Needs of Adults: How to Improve Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Tiedeman, D. V., Katz, M. R., Miller-Tiedeman, A., and Osipow, S. The Cross-Sectional Story of Early Career Development as Revealed by the National Assessment of Educational Progress. Washington, D.C.: National Vocational Guidance Association, 1977.

NAEP Series

The NAEP project has also developed several reports related to the COD assessment. These are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Career and Occupational Development Technical Report: Exercise Volume. Career and Occupational Development Report No. 05-COD-20.

For exercises that have been released, this volume provides a copy of the exercise, complete documentation about administration and scoring procedures and national results for each foil and/or scoring category.

The First National Assessment of Career and Occupational Development: An Overview. Career and Occupational Development Report No. 05-COD-00.

Adult Work Skills and Knowledge: Selected Results from the First National Assessment of Career and Occupational Development. Career and Occupational Development Report No. 05-COD-01.

An Assessment of Career Development Basic Work Skills: Selected Results from the First National Assessment of Career and Occupational Development. Career and Occupational Development Report No. 05-COD-02.

Objectives for Career and Occupational Development (1971). National Assessment of Educational Progress.

This volume contains all of the COD objectives which were samples for the 1973 assessment which is described in this publication series.

Revised Objectives for Career and Occupational Development (1977).

This volume contains the COD objectives which will be sampled for the second COD assessment which is targeted for 1978.

SECTION II

CAREER DEVELOPMENT NEEDS OF THIRTEENS: IMPLICATIONS FOR YOUR PROGRAM

The Thirteens' COD assessment data provides some insights into students' level of achievement on the five broad COD objectives:

I. Prepare for making career decisions.

II. Improve career and occupational capabilities.

III. Possess skills that are generally useful in the world of work.

IV. Practice effective work habits.

V. Have positive attitudes toward work.

These broad objectives have sub-objectives, many of which were assessed by exercises in the COD assessment (see p. 4).

This section is intended to provide a structure for you and other staff in your building to review the specific results of the Thirteens' COD assessment, and to draw implications of these findings for your career development program. As you work with these results, it is important to remember that they are for a national sample of Thirteens with sub-group analysis by geographic region (N.E., Central, West, S.E.), sex (males and females), race (others, blacks, whites), and parent educational level (unknown, No-H.S., Some-H.S., Grad-H.S., Post-H.S.). You may want to complete some local assessment procedures to identify how similar your students are to this national sample. See

the first section for information about how your district can obtain and use the COD exercises.

Throughout this section, COD results are summarized and career development implications are suggested. The next section provides a summary of the COD assessment data. You are encouraged to continue the process of drawing implications by discussing these results in your own career development planning sessions. The implications stated here are intended as a beginning to stimulate your planning. Only you and your other staff members in your building can design the specific career development program activities which are appropriate for your unique student population.

OBJECTIVE I: PREPARE FOR MAKING CAREER DECISIONS

For Thirteens, this objective assessed how well emerging adolescents are aware of their own abilities and interests, of the requirements and duties of common occupations, of the relationship of their personal interests to future jobs and careers, and of the realization that they will shortly need to accept adult roles.

KNOW OWN CHARACTERISTICS RELEVANT TO CAREER DECISIONS

The assessment results help to provide a clearer understanding of Thirteens' self-perceptions of their strengths and limitations, their efforts to evaluate and improve their abilities and limitations, the methods they use to evaluate their strengths and limitations and their self-perceptions of their interests.

Self-Perceptions of Strengths and Limitations

Result 1: Most Thirteens can state two things they can do well (strengths) and two things that they cannot do well (limitations).

Result 2: Males and females are practically equal in their ability to list their strengths. More whites than blacks are able to list both strengths and limitations.

Result 3: Thirteens descriptions of their strengths and limitations tend to cluster in the categories of group sports, individual sports, art/musical, and school or academic. Males responded more often than females in the category of group sports. Females responded more than males in the areas of art/musical, school or academic, and household skills. Whites responded more often than blacks in the categories of individual sports and hobbies and crafts. Blacks responded more often than whites in the area of household skills.

Implications: An important aspect of career development is understanding one's own strengths and limitations. By the junior high school years these qualities should be common to individual awareness as Thirteens begin exploring various occupations and careers. The COD assessment reveals that most Thirteens are able to identify their strengths and limitations. However, this ability is not spread equally among various sub-groups. Blacks and students from lower parent educational levels score lower in this area. As a consequence, these groups need extra help and encouragement in identifying their strengths and limitations.

This end might be attained by a greater concentration of guidance and counseling efforts, by specific classroom activities designed to encourage this process, by extra-curricular programs focusing on one's self-perception of strengths and limitations, and by community endeavors related to this objective.

Sex differences are evident with a high concentration of male interest in group sports. The interest of females was much more evenly distributed among a variety of activities. You and your staff may wish to question this heavy male interest in group and individual sports and consider why school or academic ranks so low among males. You may also wish to retain a reasonable interest in athletics but encourage males to participate more frequently in other activities. In a similar vein, you and your staff may wish to question why group sports ranks so low among females. If female interest in this area seems desirable, then possible changes in your current program and its appeal to both sexes needs modification.

Efforts to Improve Abilities and Limitations

Result 4: While almost all Thirteens can identify something they would like to do better, only about three-fourths have actually tried to find out how to do it better.

Result 5: Although blacks and students from the No-H.S. group are almost equal to all Thirteens in stating something they would like to do better, they are less able to state how to find out

how to improve their abilities and limitations.

Result 6: Blacks and the No-H.S. group indicate an extremely strong interest in school and academic areas and a desire to improve in these areas. On the other hand, whites and the Post-H.S. group show little interest in this area. Instead, whites are most interested in the two areas of group and individual sports while blacks have a low interest for improvement in either activity.

Implications: By age thirteen, the upheavals of adolescence have effected most students. This period of self-assessment finds most Thirteens able to identify areas they would like to do better but at least one-fourth have difficulty in finding out how to actually improve. This condition particularly is noticed in blacks and students from parents in the No-H.S. group. Of note is the fact that these latter groups all express a very strong interest for betterment in school and academic areas. Career development programs need to heed the desires of these students and integrate career development with the ongoing instructional efforts in schools. Coordinators of career development programs need to communicate the strong interests of minority students and the No-H.S. group in improving their school skills to all faculty members in junior high schools. Further, the parents of these students need to be reached through a variety of school and community activities to aid the school and their own children in self-improvement. Certainly one of the more positive aspects of the COD assessment

is the expressed desire by blacks and the No-H.S. group for betterment in school and academic areas.

Methods of Evaluating Abilities and Limitations

Result 7: When asked how well they do a preferred activity compared to others, females indicate that they do it worse and males indicate that they do it better.

Result 8: Racially, sub-groups are equal in stating if they felt they did things better or worse than others their age. Whites indicate more frequently they felt they do things about the same as others their own age.

Result 9: Males more often judge by a personal comparison while doing an activity while females tend to more often judge by what others say.

Result 10: Blacks more often judge by test scores and grades while whites more often judge by a personal comparison or piece of data and a personal comparison while doing.

Implications: Thirteens seem to utilize a number of methods to evaluate their strengths and limitations. Males indicated a more positive attitude than females in stating they felt they did a preferred activity better than others. Females on the other hand felt they did a preferred activity worse than others and utilized the opinion of others to confirm this self-evaluation. Males relied less on the judgment of others and instead favored a personal comparison while doing a preferred activity. These results indicate that girls require some

special assistance in developing more positive and independent means of self-evaluation. These should include more school experiences for females where they are forced to evaluate their own behavior without relying on the opinion of others. In a similar vein, blacks need to rely less on such external criteria as grades and test scores. They too need to have more confidence in personal judgments and self-evaluations rather than external sources of evaluation.

Methods of Improving Abilities and Limitations

Result 11: Only about three-fourths of Thirteens have tried to find out how to do their preferred activity better. A lower number are actually able to state an acceptable method for improving this ability and the majority of these responses tend toward verification from another person. Few Thirteens seem to utilize such means as stored sources, self-evaluation and formal lessons. Females tend to use other people more frequently than males while males more often use stored sources than females. Blacks and the No-H.S. group are less apt to use acceptable methods of improving their abilities.

Implications: By the time individuals reach adolescence they should possess an increased range of methods to call upon when they wish to improve a skill or ability. Many Thirteens, especially girls, seem to be overly dependent on the judgment or opinions of others as a means of self-improvement. Others seem to rely heavily on a personal comparison or a piece of data. Unfortunately, still others, such as blacks and the No-H.S. group,

seem limited in the number of methods available to them in this area. The need to broaden Thirteens' methods of improving their abilities and limitations can be met in many ways. The use of stored sources is greatly underutilized and could be enhanced by asking school and community librarians to develop systematic junior high school programs in this area. Blacks indicate a low use of live sources as a means of self-improvement. These data certainly should alert counselors and teachers to the need "to teach" these students how to use human resources more effectively. Formal lessons were also underused by Thirteens as a means of self-improvement and call for school staffs to reassess their own objectives in this area. Overall, the attempt by the majority of Thirteens to do their preferred activity well needs to be met both by school and community awareness of the primary activities where these efforts occur, and by use of deliberate measures to give Thirteens a wider range of options to use in accomplishing these goals.

Self-Perception of Interest Areas

Result 12: When asked to state their strong and weak interest activities in terms of self-improvement, Thirteens' answers cluster in the group sports, and school and academic areas. More males respond in the group sports area than in any single category and more females respond in the school and academic area than in any single category.

Implications: The desire for self-improvement in interest areas assessed by COD raises several questions regarding Thirteens.

If we assume that the areas assessed are the primary activity areas of Thirteens, does the low interest in all areas but group sports and school indicate Thirteens are analyzing their interests in terms of narrow categories when compared with their total life experiences? If so, is this due to a narrow range of life experiences or an overemphasis on school experiences, i.e., group sports and school work? However these questions might be answered, it certainly appears that career development programs for Thirteens must design activities encouraging students to study how they use their out-of-school time. Further, career development programs for Thirteens need to systematically plan activities that involve these students in a wider and richer range of experiences. This is true for both girls and boys although the particular experiences need to be carefully considered for each group.

KNOW THE CHARACTERISTICS AND REQUIREMENTS OF DIFFERENT OCCUPATIONS

The assessment results help provide a clearer understanding of Thirteens' knowledge of the duties and requirements of highly visible occupations. In addition, this assessment gives some information concerning Thirteens' knowledge of which occupations are in the same field and the required abilities of common occupations and occupational families.

Result 13: Thirteens score extremely high on multiple-choice questions related to the duties of highly visible occupations.

Result 14: Thirteens score extremely low on identifying highly

visible occupations based on verbal descriptions requiring wirtten responses.

Result 15: Thirteens score moderately well on multiple-choice questions related to the identification of highly visible occupations by the physical characteristics required for the job.

Result 16: Thirteens score very low on the identification of highly visible occupations based on the earning power of these occupations.

Result 17: Overall, males and females are equally knowledgeable about highly visible occupations. However, there is some evidence that there are sex differences in the knowledge of specific occupations. For example, males can more easily identify such occupations as: locksmith, bank teller, carpenter, watch repairman, plumber, and chemist. Females can more easily identify such occupations as: social worker, secretary, accountant and physician. This tends to support sex stereotyping of occupations as an influence on occupational knowledge.

Result 18: For all exercises, blacks and the No-H.S. group score consistently lower than the total group on occupational knowledge.

Implications: Thirteens' knowledge of highly visible occupations is high when based on information describing the duties and physical characteristics of jobs. It tends to be much lower when based on the specifics of occupations such as earning power or detailed work. Thirteens, therefore, seem to have general and broad information about occupations but insufficient

knowledge concerning specific tasks, duties and benefits of occupations. They also appear to have difficulty in comparing certain occupational families and the required abilities of common occupations. For schools, these results indicate a need for all students to be presented with a broader range of occupations within our society. However, for minority students and those from lower parent educational levels, there is still a need for help in identifying highly visible work roles. This assessment also supports the idea that sex stereotypes exist, and that males and females consider some occupations as being more appropriate than others because of subtle information they receive from their environment. This supports the current interest in developing career information materials and career development activities which present an objective view of occupations. You will probably want to carefully review materials and program activities to be sure that they are sex-bias free before you use them in your career development program.

RELATE OWN PERSONAL CHARACTERISTICS TO OCCUPATIONAL REQUIREMENTS

The results of this assessment help in determining how Thirteens' associate their own abilities and limitations with possible success in future occupational pursuits.

Result 19: Approximately seventy per cent of Thirteens are interested in a current hobby, sport, game or activity which they felt would be of use for obtaining a job. A similar number actually can list such an activity.

Result 20: Group and individual sports are the major categories selected by Thirteens as most useful in obtaining a job. School and academic rank near the bottom.

Result 21: A higher percentage of males, blacks and the No-H.S. group are able to list activities useful in obtaining a job.

Result 22: Males tend to see themselves in a future job doing the same thing as they are now doing in their game, hobby or activity. Females tend to see themselves in future jobs in a teaching capacity.

Implications: When questioned, the majority of Thirteens can associate some current endeavor with a future occupation. The realism behind these choices might be questioned when group and individual sports are the highest choices of Thirteens. Nonetheless, Thirteens can associate some of the experiences in their present life with eventual work. It is of note to school people that a very small percentage (3%) of Thirteens associate their current academic pursuits with usefulness in obtaining a future job. This certainly needs to be discussed in faculty meetings, in curriculum selection, in choice of field trips, and in terms of junior high emphasis in guidance and counseling. On a similar note, much discussion should develop around the findings that males, minority groups and the lower parent education groups were much more able to list current activities related to future work than females, whites and students of higher educational levels. Does this finding mean some groups defer decisions about work until a much later time because of school, family or social expectations? Conceivably, this finding

reinforces the notion of who is to be a worker and who is not in today's society. If so, this certainly is a pertinent topic for classes in social studies and related areas. Similarly, if males see themselves in future jobs based on current interests (sports), is this realistic? Do not physical education staffs and guidance departments have a responsibility to work together on this myth? Also, is it desirable and realistic for females of this age to see themselves in future jobs primarily as teachers? Does this not restrict and constrict present choices and later options?

PLAN FOR CAREER DEVELOPMENT OR CHANGE

The assessment results aid in understanding Thirteens' knowledge of relevant factors in planning toward an occupation or career. They give some information concerning how Thirteens relate the educational process to securing training basic to most occupations. The assessment results also indicate how Thirteens relate their planned curricula to their own tentative career goals. Finally, these results give some tentative knowledge of whether Thirteens are aware of alternative career choices or occupations and have considered the consequences of career changes.

Relationship of School to Work

Result 23: The vast majority of Thirteens state that at least one school subject has taught them something of use in a job.

Result 24: A higher percentage of whites and the Post-H.S. group than blacks and the No-H.S. group can relate school subjects to a job.

Result 25: Of eleven school areas, mathematics receives a larger percentage of responses linking this discipline to work and jobs than the combined total of the remaining ten. Few Thirteens perceive any areas other than mathematics, science and English as having taught them anything useful for a job.

Implications: Although almost ninety per cent of all Thirteens feel some subject taken in school has taught them something of use in a job, this result is misleading for a number of reasons. First, minority group students and those whose parents have not received a high school education do not feel the same as other Thirteens. Schooling for them is not linked so strongly with future work. Second, even among those indicating a positive relationship between schooling and a job, over half selected one subject, mathematics, as the discipline most useful in a job. For schools, these results call for a re-examination of curriculum and instruction, particularly in areas non-related to mathematics. Obviously, junior high schools are not work training centers. On the other hand, it seems vital for all school subjects to provide to students some relationship between a particular subject and adult careers in this area. For school faculties, these results suggest some subjects are taught just for the sake of mastering a lesson or discipline. They also suggest some groups, i.e. minorities, see little connection between what occurs in schools and what occurs in the world of work. These findings need discussion by school policy makers and certainly call for a careful look at existing materials and curriculum guides. Counselors may wish

use these results as a means of incorporating new career development programs for junior high school students. Above all, these results should lead to a serious questioning of omissions in both the curriculum and teaching in junior high schools.

Planning for a Future Job or Career

Result 26: When asked to list ten things to be considered in choosing a job or career most Thirteens can list two things and less than half of the Thirteens can list more than five.

Result 27: When asked how to find out how to get more information about an occupation before taking a job, an extremely low percentage of Thirteens say they would go to their counselor or teacher.

Result 28: Although Thirteens have difficulty in stating specific factors to consider in choosing a job or career, most do think about a future job. Among Thirteens, a larger percentage of females and whites think about future jobs than males and blacks.

Result 29: The first choices of Thirteens for future jobs tend to be occupations generally requiring college degrees or lengthy training periods beyond high school. Few Thirteens see themselves in future jobs now held by the bulk of the work force.

Implications: The world of work is a reality for most adults and this is reflected in Thirteens' awareness that they too will have an adult work role. Unfortunately, these results also

indicate that Thirteens have limited knowledge of what factors are necessary in considering a future job or career. Again, as in other COD exercises, this appears to reflect a superficial or passing knowledge by Thirteens of a variety of visible adult occupations but little in-depth information about specific jobs. For schools, these data should caution educators not to interpret adolescents' ability to recognize a host of occupations for anything other than just this, an ability to identify one job from another. It does not mean that Thirteens fully comprehend how to analyze particular occupations of what the day-to-day work responsibilities entail. At the very least, this calls for educators to expand career development programs at the junior high school level by a broader and richer presentation of future opportunities in work. However, what seems most essential for Thirteens is a frame of reference for understanding and analyzing careers and occupations. This can be developed by didactic experiences in classrooms, use of media, field trips, classroom visits by work representatives designed to develop comprehensiveness in job thinking, greater use of school librarians, group guidance projects and the use of test instruments calculated to stimulate new ways of viewing work. A confounding problem in educating Thirteens about careers is the fact that very few thirteens now look upon counselors or teachers as helpful in that role. If this is true, and if career development programs are primarily designed to be implemented by counselors and teachers, this entire movement is in for serious trouble until such time as these individuals are committed to this goal

and perceived by students as such. School people also need to pay close attention to Thirteens' preferences concerning future jobs. Thirteens currently see themselves in future occupations occupied by a small proportion of the total work force and requiring lengthy training periods. Why this is so needs to be deliberated by educators among themselves but also with their students. This dialogue requires students to familiarize themselves with a great number of available resources in this area but the true beginnings must start with school people.

OBJECTIVE II: IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

The enhancement of one's career and occupational capabilities occurs in a variety of settings and under a myriad of circumstances. For Thirteens, this process takes place in school, at home, in part-time employment, in experiences in the community and in educational events outside the school. In all of these settings, Thirteens are involved in experiences that widen their knowledge and skills and prepare them for future careers and occupations. The COD assessment results provide information about Thirteens' perceptions of their own work activities, and their exposure to experience which can broaden their occupationally relevant knowledge and skills.

Work Done at Home

Result 30: Practically all Thirteens are able to state types of work they do at home. They are therefore able to link activities done in the home as a type of work activity.

Result 31: Fewer males, blacks, and No-H.S. students are able to state work they do at home. This could be interpreted to mean more females, whites and Post-H.S. students do work at home or the former sub-groups may simply not perceive activities done at home as work related.

Implications: The work done by Thirteens at home could provide career development programs with a starting point for an exploration of future careers and occupations. Rarely are home related activities discussed in classrooms as contributions young people make to their families and communities. The exchange of these activities between and among adolescents could serve as a logical basis for helping students look at activities which they prefer and in which they are skilled as jumping off points for further career exploration.

Visits to Places of Interest in the Community

Result 32: When asked if they had ever visited any of eleven places of interest in the community, the vast majority of Thirteens have actually been to at least half of these places of interest. However, a lesser number have been to eight or more and very few to ten of these places. Among sub-groups, those from the S.E., blacks and No-H.S. had visited fewer places of community interest.

Implications: It is frequently assumed that places of interest in the community have been visited by most adolescents. This assumption presumes that through elementary school activities, parent initiative, clubs and organizations, and the initiative of the person themself, those places of interest in the community

have on some occasion been frequented. This conclusion is obviously true for many Thirteens. However, it is just as obvious that for some Thirteens these potentially valuable experiences have not occurred. For educators in schools containing minority students or those in the No-H.S. group, it seems important to consider how various work roles in society can be increased by such visits. Additionally, these visits can give Thirteens a wider and clearer understanding of their interest in work activities. Conceivably, these visits need to be supported by community groups or the actual institutions/ places your students might be visiting.

Participation in Out-of-School Training and Lessons

Result 33: Nearly 80% of Thirteens have participated in out-of-school learning experiences such as special training and lessons. Blacks and No-H.S. group have had fewer such experiences.

Implications: As with the previous exercise, it is a mistake for school personnel to assume that students have had certain types of experiences. This is especially true for minority students and those from the No-H.S. group. These findings suggest that school personnel, especially school counselors, should periodically survey their students with exercises similar to the COD assessment. In this manner, voids in important experiences outside the school context can be identified and eventually included as part of the regular school or extra curricular program. Further, these findings indicate that Thirteens are overly invested in a few out-of-school experiences, such as sports or

music, to the exclusion of many additional endeavors. The boradening of special training and lessons to include a much wider and richer field of learning experiences can benefit Thirteens immeasurably.

Self-Perception of Specific Work Related Skills

Result 34: One exercise (200019) focused on the independence of Thirteens and asked them to identify from a list of 26 activities those they had done without assistance. Well over three-fourths of Thirteens have done at least seventeen of these without help and nearly half have done at least twenty. This points to the fact that Thirteens in general are certainly involved in a variety of activities which are work related.

Result 35: These activities were clustered according to household skills and maintenance skills. Females and the Post-H.S. group score higher in the household skills area, and males, whites and the Post-H.S. group score higher in the maintenance-building skills area.

Implications: In general, Thirteens have been exposed to a host of out-of-school experiences they have done without assistance. These experiences could be capitalized on by school personnel by using these activities as jumping-off places to stimulate student thinking about their current work related skills. In addition, these activities could be added to by a survey tapping the unique experiences of students in your school. The accumulation by each student of a long list of out-of-school experiences

they have had without assistance could lead to a look at the range of careers awaiting them in the future. By connecting their present skills and interests with future career choices, the process of initial career planning could begin on a positive note and with individual student direct involvement.

There were important sex, racial and parent educational level differences for this exercise. It is evident that minority students and those whose parents have not attended high school have not been exposed to as many experiences associated with independence as their fellow students. In a similar vein, females and males show an unevenness in the experiences they reported. Your staff may want to discuss the implications of these findings for your particular program. You may well decide that you want to design experiences which allow all groups of students to experience a broad range of activities.

Job-Seeking Activities

Result 36: Over half (59%) of all Thirteens have at some point attempted to find a part-time or summer job. A larger number have been successful in their job-seeking as some 87% of all Thirteens report they have worked for pay. A smaller number (59%) report they had done unpaid work.

Result 37: A higher percentage of males, blacks and the Post-H.S. group report they have actually tried to find a job. However, in responding to how successful they were in ever working for pay, blacks and others report less success than males, whites,

and the Post-H.S. group. In regard to unpaid work, males, whites, and the Post-H.S. group also report much more than the other sub-groups.

Implications: A large number of Thirteens have worked for pay at some point in their lives and over half have also done unpaid work. As a consequence, the world of work has been explored and experienced by the vast majority of Thirteens. Any junior high school considering or implementing an active career development program would do well to utilize these work experiences of Thirteens. In using these work experiences, a common sharing of paid and unpaid work could widen the horizons of all Thirteens. However, an even more important contribution might be Thirteens' accounts of just how one goes about securing a part-time or summer job. This type of dialogue may occur randomly among various peer groups, but it is rare as a systematic and deliberate school experience.

The sharing of information about the nitty-gritty of what jobs are available and how they can be obtained is especially important for minority students, females and the No-H.S. group. The COD findings indicate that these sub-groups are either disinterested, discouraged or unsuccessful in obtaining jobs. Special consideration therefore is necessary in planning specific programs for these groups of Thirteens. Whenever possible, it would be desirable to invite potential employers and community representatives to the school to help in these programs. High school students should also be considered as potential helpers in such a program.

OBJECTIVE III: POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

The COD assessment had a number of categories specifically designed to assess the skills possessed by students that are generally useful in the world of work. These included generally useful skills in the numerical, communications, manual-perceptual, information-processing and decision-making, interpersonal, and employment-seeking areas. All of these categories except information-processing and decision-making were included in the assessment of Thirteens.

NUMERICAL, COMMUNICATION AND MANUAL-PERCEPTUAL SKILLS

Result 38: Thirteens, in general, have difficulty on the six exercises assessing numerical skills. This is especially true on exercises measuring skills in the reading of dimensions on drawings, in comparing common fractions with decimal fractions, in calculating amounts needed to do practical jobs, and in using measurement equivalents, ratios and proportions.

Result 39: The S.E. group, blacks, and No-H.S. group score lower than the total group for the numerical skills while the N.E. group, whites and Post-H.S. group score higher. Males and females show scattered strengths with neither group being higher on all exercises.

Result 40: On three of the four exercises, over three-fourths of Thirteens are able to give correct responses to the communication skills related to communicating understandably and following written and spoken instructions.

Result 41: In general, the Central group, females, whites and the Post-H.S. group score higher on all communication exercises. The S.E. and West groups, males, blacks and the No-H.S. group tend to score lower on at least three of the four communication exercises.

Result 42: Over seventy per cent of Thirteens are able to respond correctly to the manual-perceptual skills required in using a ruler, reading a measuring cup and reproducing four geometric figures.

Result 43: The S.E. group, blacks and the No-H.S. group are lower and whites and the Post-H.S. group higher than the total group for manual perceptual skills. Females score lower than males on the ruler exercise but are equal to males on the two remaining exercises.

Implications: Thirteens seem weaker in numerical skills and stronger in communication and manual-perceptual skills. These tentative results are based on a limited number of exercises and therefore need to be examined in the light of the curriculum your school follows and your unique population. As with other COD areas, you may wish to actually survey your student population to see how their responses compare with a national sample. You may also wish your teachers to examine the COD exercises and discuss how their goals are reflected in the COD questions.

Based on these results, a number of findings seem evident. First, blacks, S.E. group and the No-H.S. group score consistently below the total group on numerical, communication and manual-perceptual skills. Second, whites and the Post-H.S.

group score consistently higher on all three areas. Third, there appear to be no overall gross sex differences in these three areas although males did score lower in the communication area.

When your school examines these results, it seems important to identify sub-groups within your total population. As you look at these sub-groups, you may wish to question how flexible your curriculum is for specific sub-groups. Are enrichment and remediation programs available for those groups so indicated? What of teaching methodology and instruction? Are these similarly flexible and modifiable according to sub-group need? Finally, does the total school program sufficiently integrate the learning of basic skills with an understanding of how these skills are utilized in the world of work?

INTERPERSONAL SKILLS

Result 44: On the three exercises assessing interpersonal skills a high percentage of Thirteens give acceptable responses.

Result 45: The West group, females, whites and the Post-H.S. group score higher than the total group on all interpersonal skills and exercises with the S.E. group, males, blacks and the No-H.S. group scoring lower than the total group.

Implications: The interpersonal skills measured in the COD assessment could be interpreted as seeing who are the "goody-goodys" or current girl and boy scouts. Obviously, the COD exercises had a strong emphasis on helping other people or deciding what

kinds of behavior are the best and worse. In this sense, interpersonal skills were also closely linked to communication abilities and ethical conduct.

The finding that the vast majority of Thirteens gave acceptable responses to this category is encouraging. Frequently, young adolescents are viewed negatively as irresponsible individuals, and these findings point in a different direction. Unfortunately, schools cannot take full credit for this finding. Interpersonal skills are not the sole province of schools and few curriculum guides could point to extended lessons in this area. Instead, these skills are reflections of a variety of influences including the home, school, community and peer group.

Unhappily, interpersonal skills are not evenly distributed among Thirteens. It therefore behooves school personnel to carefully analyze these results and then compare them with their own populations. In particular, schools might question why these skills are found more frequently among females, whites and the Post-H.S. group. Do these sub-groups actually possess more of these skills or are they afforded more opportunities in and out of school to strengthen these skills? Perhaps the reward structure in society and school also influence growth in this area and need examination and eventual expansion to include a wider spectrum of individuals.

EMPLOYMENT-SEEKING SKILLS

Result 46: A high percentage of Thirteens are able to list at least three or more ways people their age could earn money.

Result 47: The West group, whites and the Post-H.S. group score higher on how to earn money and the S.E. group, blacks and the No-H.S. group lower than the total group.

Implications: Although most Thirteens have information at their disposal on how to earn money, this knowledge is unevenly distributed. Minority group students and those from the No-H.S. group have less information in this regard and yet may have more of a need to earn money. Although schools cannot double as employment agencies, it does seem possible to create forums to aid students in need of this information. Guidance personnel could be instrumental in this area by creating interest groups around this topic. Certain subject-matter areas may also help toward this end such as home economics, industrial arts, physical education and social studies.

OBJECTIVE IV: PRACTICE EFFECTIVE WORK HABITS

Effective work habits do not begin when young adults suddenly find themselves in their first job. Rather, the foundation for adult work habits begin with chores at home, school work and in play activities. The COD assessment examined two areas related to practicing effective work habits. These were to assume responsibility for own behavior and to use initiative and ingenuity in fulfilling responsibilities. The exercises used to assess this objective involved situations familiar to Thirteens.

ASSUME RESPONSIBILITY FOR OWN BEHAVIOR

Result 48: In some situations, Thirteens do not see themselves as ultimately responsible for their own behavior.

Result 49: In an exercise (401003) where a child did not complete a task for her mother because she stopped to talk to a friend, only 23% of Thirteens feel it was the child's fault. The Central group, blacks and the No-H.S. group score lower than the total group on this exercise while the West group, whites and the Post-H.S. group score higher than the total group.

Result 50: In some situations, Thirteens do see themselves as ultimately responsible for their own behavior.

Result 51: Over 70% of Thirteens assume responsibility in an accident situation caused by a worker and over three-fourths can give an acceptable reason. A large number of Thirteens are also able to give a valid reason for what they would do if a new rule in school was unfair.

Implications: A major outcome of career development programs should be to help students realize that they will need to assume responsibility for a variety of career decisions throughout their lifetimes. The results of the COD assessment indicate that many Thirteens are very ambivalent regarding the assumption of responsibility for their own behavior. In some situations, Thirteens deny this responsibility and in others assume a high degree of responsibility. Whether this behavior is situational or simply indicative of the puzzling responses of early adolescents is questionable. However, it seems clear that Thirteens

do need help in this area. This assistance can range from classroom situations stressing moral and ethical behaviors to assignments geared to strengthen and encourage this quality to counseling situations where students can set goals regarding responsible behavior. Above all, schools need to create situations and experiences with intrinsic interest to students that require responsible behavior. Routine and dull assignments will negate this end.

USE INITIATIVE AND INGENUITY TO FULFILL RESPONSIBILITY

Result 52: The vast majority of Thirteens are able to demonstrate initiative and ingenuity in two exercises assessing this sub-objective. Some 88% of Thirteens give an acceptable response for the exercise related to seeking assistance when needed from a teacher. On a related exercise (403004), over 97% of Thirteens are able to complete a paper folding task within a specified time period.

Result 53: The N.E. group, females, whites and the Post-H.S. group scored higher on both exercises than the total group while males and blacks scored lower than the total group.

Implications: Thirteens seem quite capable in attending to an assigned task and completing it within time limitations. They do less well on tasks that are not completely clear and some Thirteens seem unwilling or unable to take the initiative in seeking assistance under these circumstances. In particular, males and blacks score low in situations where they must actively

seek help from authority figures or resource people. The attitude of males and blacks in situations calling for them to show initiative could be mistaken for one of indifference and apathy. Instead, it is possible that these groups need help in knowing how to use authority figures and resource people. This can be done in classrooms by planned lessons, role playing and outside school assignments demanding these skills.

OBJECTIVE V: HAVE POSITIVE ATTITUDES TOWARD WORK

The COD assessment had a number of categories specifically designed to assess the attitudes held by students toward work. These included recognizing the bases of various attitudes toward work, holding of competence and excellence in high regard, seeking of personal fulfillment through one's own achievements, and valuing work in terms of societal goals. All of these categories except holding competence and excellence in high regard were assessed for Thirteens.

RECOGNIZE BASES OF VARIOUS ATTITUDES TOWARD WORK

Result 54: Over 94% of Thirteens can give two or more acceptable reasons why people who wish to work cannot find a job. Well over half of Thirteens can give five or more reasons.

Result 55: The S.E. group, blacks and those in the No-H.S. group scored below the total group while the N.E. group, whites and the Post-H.S. group scored above the total group.

Implications: Thirteens seem sensitive and aware concerning attitudes toward work. They were able to give a rich and wide range of responses to the question of why those who wish to work cannot

always find employment. Surprisingly, those sub-groups most frequently forced into this position gave the least number of acceptable responses. Those sub-groups from the S.E., blacks and No-H.S. group scored well below the total group in number of reasons. This result could be interpreted in many ways ranging from a general feeling of hopelessness or resignation on the part of these sub-groups to a feeling of guilt and WASP conscienceness on the part of other sub-groups. One conclusion that could be drawn is that sub-groups unable to explain this phenomenon need help in defining work attitudes more than others. Even more so, these sub-groups need a better self-image and the skills and tools to develop positive work attitudes toward the future.

SEEK PERSONAL FULFILLMENT THROUGH OWN ACHIEVEMENTS

Result 56: Three-fourths of Thirteens feel they eventually should make the final decision as to what job they would take to make a living.

Result 57: A higher percentage of whites and those from the Post-H.S. group feel that the ultimate decision to earn a living from a specific job should be their choice. A lower percentage of blacks and the No-H.S. group feel this choice should be theirs alone and a higher number of these two sub-groups feel their parents should make this decision.

Implications: If economic independence is an eventual goal for adults, then three out of four Thirteens seem to have accepted this as a future objective. Be this an economic necessity or an American

virtue, Thirteens have by and large bought the notion that they should make the final determination for earning the type of living they desire. Not surprisingly, whites and the Post-H.S. group have less doubts about their stake in career setting. On the other hand, blacks and the No-H.S. group either have less confidence in their ability to accept this long-term responsibility or associate future jobs with family considerations. These findings should not be interpreted as a case of the "good guys versus the bad guys." Career independence may be a virtue for some but career interdependence, vis a vis familial ties, may be just as honorable a course for others. These findings demand and require careful and considerate deliberation. They can easily be read as a case of those who are dependent versus those with a longing for independence. They could also be viewed as those with a premature view of career development and those with a deferred view.

VALUE WORK IN TERMS OF SOCIETAL GOALS

Result 58: Thirteens seem almost evenly split on whether or not to continue child labor laws.

Result 59: More males and No-H.S. favor abolishing child labor laws while more females and Post-H.S. favor continuing child labor laws.

Implications: The finding that Thirteens are almost evenly divided on whether or not to continue child labor laws raises more questions than it answers. At the very least, it calls for social studies teachers to pursue this topic at some length. This

finding could mean a misinterpretation by Thirteens of what these laws cover and they may see these as restrictions on their own employability. Still others may have an historical void as to why these laws were first enacted. On the other hand, these results may reflect discriminatory practices Thirteens have experienced or have had reported to them by siblings and friends. The additional findings that more males and the No-H.S. group favor discontinuing these laws adds to the need for some school time devoted to this and related issues.

SUMMARY

This section has provided a summary of fifty-nine results from the COD assessment which can help you better understand the current status of Thirteens on five broad career development objectives. These results represent baseline data about areas of strengths and limitations. In addition, implications have been suggested. These implication statements are intended to stimulate your thinking about possible career development program activities which will respond to the career development needs of Thirteens as identified by the assessment. COD data provide a unique opportunity for you and others on your staff to design programs based on measured needs. As was suggested at the beginning of this section, you may well want to verify the extent to which this COD data from a national sample reflects your own student group by administering the COD exercises in your school district. The next section provides a description of the released COD exercises and the assessment data from these exercises arranged by COD objective.

SECTION III

SUMMARY OF COD ASSESSMENT DATA FOR THIRTEENS

This section provides a fuller description of the COD assessment data. Data for all of the released exercises are presented organized by the five broad COD objectives. This section provides the following information to help you better understand the assessment: (1) the sub-objectives which were assessed, (2) the nature of the exercises which were used, (3) the percentages of the Thirteens who gave acceptable responses and who responded in specific response categories, and (4) important differences in percentages for various student subgroups. Those who are interested in the implications of the COD assessment results for designing career development programs may want to simply scan this section to gain a feel for the nature of the exercises and the response patterns. The previous section, "Career Development Needs of Thirteens: Implications for Your Program," has summarized the COD data by summarizing the results and suggesting implications of these results for career development programs.

OBJECTIVE I: PREPARE FOR MAKING CAREER DECISIONS

The first broad COD objective assessed was, "Prepare for making career decisions." This objective had four sub-objectives:

A. Know own characteristics relevant to career decisions.

B. Know the characteristics and requirements of different careers and occupations.

C. Relate own personal characteristics to occupational requirements.

D. Plan for career development or change.

The assessment for Thirteens contained three items to measure sub-objective A, four items to measure sub-objective B, one item to measure sub-objective C and four items to measure sub-objective D.

KNOW OWN CHARACTERISTICS RELEVANT TO CAREER DECISIONS

Ideally, career development begins very early in the human life cycle and proceeds progressively with the course of maturation. Realistically, career development is inextricably linked to the personal development of individuals and therefore requires self awareness in order to prosper. Self awareness is critical in career development because it allows individuals to appraise their own characteristics and to compare and contrast these qualities with career opportunities. The initial section of the COD assessment contains three items related to Thirteens' perceptions of their own abilities, interests and strategies for self-improvement.

Self-Perceptions of Abilities and Limitations

One exercise (101003) examined students' perceptions of their abilities and limitations:

A. People can do some things better than others. What are two things that you can do well?

B. What are two things you have tried that you do NOT do very well?

See Table 1, p.99

Table 1 gives the percentages of Thirteens who gave acceptable responses for both parts of the exercise. Practically all Thirteens were able to state two things they can do well. Slightly less, but well over three-fourths, were able to state two things they cannot do well.

Group Difference

There were differences among sub-groups in responses for both parts of the exercise.

1. A higher percentage of females (96%) and a lower percentage of males (94%) were able to state things they can do well. In a similar fashion, a higher percentage of females (95%) were able to state things they cannot do well than males (88%).
2. Whites had higher percentages for both parts of the exercise than blacks. For Part A, 90% of whites listed two acceptable responses compared to 79% of blacks. For Part B, 82% of whites listed two acceptable responses compared with 74% of blacks.
3. Percentages for both parts of the exercise tended to increase with parent educational level. For Part A, 90% of the Post-H.S. group gave two acceptable responses compared to 85% of the No-H.S. group. For Part B, 83% of the

Post-H.S. group gave two acceptable responses compared to 75% of the No-H.S. group.

4. Regional differences were also evident on both parts of the exercise. For Part A, the highest percentage of two acceptable responses was recorded in the N.E. (89%) and the lowest in the S.E. (87%). Similarly, on Part B, the N.E. (82%) led in the highest percentage of two acceptable responses and the S.E. was the lowest with 77%.

Response Categories

The responses for both parts of the exercises were scored according to the following response categories: games, group sports, individual sports, art/musical, hobbies and crafts, school or academic, and household skills.

See Table 2, p.99

Table 2 gives the percentages for the response categories. A review of the response category indicates that Thirteens' self-perceived abilities and limitations clustered in the categories of group sports, individual sports, art/musical school or academic and household skills. Few students responded in the categories of games and hobbies and crafts.

Group Differences

See Table 3, p.100

As Table 3 indicated, there were a number of differences among males and females among certain sub-group response categories. Although the responses of males and females tended to be quite similar in the response categories of individual sports and school or academic, there were significant differences in a number of other response categories. These differences can be summarized by nothing that males responded much more frequently to the group sports category for both Parts A and B. This preference, coupled with males high regard for individual sports, would see the general area of sports as the parimary area of interest for male Thirteens. On the other hand, whereas individual sports also ranked high for females, there was a much greater diversification of interest for females. This included medium to high interest in such areas as art/musical, school or academic and household skills. Clearly, with the exception of group sports, females showed a wider and broader interest pattern than males at this age.

Efforts to Evaluate and Improve Abilities

Two exercises assessed Thirteens' behavior related to evaluating and improving their own abilities. The first (101005) asked students five questions:

A. What is ONE thing you enjoy doing that you would like to do better?

B. How well do you do this compared to other people your age?

C. How do you know how well you do this?

D. Have you tried to find out how you could do it better?

E. How did you try to find out?

The second (101013) asked students these questions:

A. Have you ever asked someone hwo you could play some game better or do some work better?

B. What was it you wanted to know how to do better?

Parts A and D of exercise 101005 and Parts A and B of exercise 101013 assessed whether students had evaluated their abilities and sought help to improve them.

See Table 4, p.100

Table 4 indicates that most Thirteens can state something that they would like to do better while only three-fourths have actually tried to find out how to do that thing better. Also, slightly over three-fourths have tried to improve their ability to do something by asking another person while a slightly lower number were clear about what they had tried to improve by seeking help from another person.

Group Differences

There were differences among sub-groups in responses for these parts of the exercise.

1. There were no significant differences between males and females. However, a higher percentage of males than of females had asked others how to do something better and could state what it was they wished to do better.
2. There were two significant racial differences. A higher percentage of whites than of blacks had tried to find out how to do the thing they would like to do better. Also,

more whites than blacks have asked someone how they could play some game or do work better.

3. In regard to parent educational level, percentages tended to increase with higher educational backgrounds. More students in the Post-H.S. group had tried to find out how to do the thing they would like to do better. Further, more students in the Post-H.S. group had asked someone how to do it better and could state what it was they wished to do better.

Response Categories

The responses of students to Part A of exercise 101005 asking them to state one thing they would like to do better, and to Part B of exercise 101013 asking them if they had asked someone how to do that thing better, were categorized according to type of response. The response categories (same as for exercise 101013) were games, group sports, individual sports, art/musical, hobbies and crafts, school and academic, and household skills.

These responses showed some similarity in that group sports and school/academic ranked among the top three on both exercises. However, individual sports and school/academic evidenced great variation between exercises. Whereas in exercise 101005, individual sports ranked second to group sports in student popularity, it fell off to a poor fourth in exercise 101013. On a different note, whereas school/academic ranked a poor third on exercise 101005, this category exceeded even group sports as the top choice of exercise 101013. Sex differences were consistent on both exercises with males

responding most often to group sports and to a much lesser extent to games and hobbies and crafts. Females responded most often to individual sports, school and academic, music/art and household skills. Racial differences were apparent in that whites responded most often on both exercises to group and individual sports as contrasted to blacks. On the other hand, blacks responded more frequently to school and academic on both exercises than did whites.

Methods of Evaluating Abilities

Part A of exercise 101005 asked students to state one thing they would like to be able to do better. Parts B and C of that exercise assessed the methods which Thirteens use to evaluate their own abilities:

B. How well do you do this thing compared to others your age?

C. How do you know how well you do this?

Responses for Part B asked students to indicate whether they did the thing better, the same, or worse than others their age.

See Table 5, p.101

Table 5 highlights the differences for self-assessment of how well Thirteens feel they do compared to others their own age.

1. About four-fifths of the total group were able to make this comparison.
2. Sex differences were present with a higher percentage of males than females stating they do it better, and a higher

percentage of females than males stating they do it worse.

3. More blacks than whites stated they do it better than others their age and more whites than blacks stated they do it the same as others their age.

Part C asked students to indicate how they knew how well they did the thing. This assessed methods which Thirteens used to support their self-evaluations of their abilities. Responses were categorized according to four acceptable responses: (1) judge by what others say, for example, "Well, my dad tells me sometimes;" (2) judge by test and grades, for example, "'Cause I got an A in art;" (3) personal comparison with others while doing the same tasks, for example, "I beat other children;" and (4) comparison or piece of data indicating ability, for example, "Because I have more trophies than anyone else around."

See Table 6, p.101

Table 6 shows that Thirteens most frequently evaluate their ability by personal comparison or piece of data, followed by judging what others say, personal comparison while doing the same task, and judging by tests and grades. More males than females support their self-evaluations by personal comparison while doing the same task and more females than males utilize what others may say to support their self-evaluations. Racially, more blacks than whites support their self-evaluations by test scores and grades whereas whites more frequently than blacks resort to personal comparisons while doing.

Methods of Improving Abilities

Part E of exercise 101005 asked Thirteens how they have tried to find out how to do something better. This assesses resources students use to strengthen their abilities. Responses were scored in four categories: (1) verification from a live source, for example, "Asking my coach and practicing;" (2) verification from a stored source, for example, "Look in the library for books'" (3) self-evaluation and/or correction, for example, "I tape myself and play it back;" and (4) formal lessons, for example, "Go to the Y and take lessons."

See Table 7, p.102

Table 7 summarizes the results for this exercise part:

1. Over two-thirds (70%) of the total group were able to state acceptable methods of strengthening abilities.
2. Females used verification from a live source more frequently than males whereas males utilized verification from stored sources and practice more often than females.
3. Whites sought verification from a live source much more frequently than blacks as a means of strengthening abilities.
4. The Post-H.S. group more frequently used verification from a live source and practice than did the No-H.S. group.

KNOW THE CHARACTERISTICS AND REQUIREMENTS OF DIFFERENT CAREERS AND OCCUPATIONS

Knowledge of the characteristics and requirements of a variety of occupations is an important aspect of career development. The development of this occupational awareness can be encouraged at both the elementary and junior high school level and has been an emphasis in career education. COD contained four exercises which assessed Thirteens' awareness of the main function of highly visible occupations. The results of these four exercises provide data which can help you better understand Thirteens' current achievement in the area of occupational knowledge.

Correctly Identify Occupational Descriptions

The first exercise (102002) which assessed occupational knowledge contained five multiple choice sub-parts. Each of the five presented a brief description of someone in an occupation including both duties and requirements. For example:

> "I wear a white uniform and white shoes. I work in a hospital where I help doctors take care of sick people. I bring medicine to patients and take their temperatures, and do lots of things to make the patients feel better."

The five sub-parts assessed knowledge of the occupations of nurse, mailman, secretary, service station attendant and newscaster.

The total group of Thirteens performed exceptionally well on this exercise. Ninety-eight per cent of the Thirteens were able to correctly identify at least four of the five occupations correctly. There were few significant sub-group differences on overall performance.

Sub-Group Differences on Exercise Sub-Parts

See Table 8, p.103

Table 8 gives percentages of Thirteens who gave correct responses to each of the five sub-parts. Several trends emerge from these data:

1. There is some evidence of sex difference in knowledge of occupations. Females correctly identified each of the five occupations with a higher percentage than males.
2. There is some evidence of racial difference in knowledge of occupations. Whites correctly identified each of the five occupations with a higher percentage than blacks.
3. There is a consistent trend for parent educational level to influence performance with the No-H.S. group scoring lower than the total group and the Post-H.S. group scoring higher than the total group.

Identify Occupation from Verbal Description

The second exercise (102011) which assessed occupational knowledge contained five sub-parts. Each sub-part consisted of a verbal description of a specific occupation with instructions for the student to write down the correct occupation following the speaker's description. For example, the first occupational description read as follows:

"I measure flour, sugar, shortening and other ingredients according to recipes, and mix and bake them to make breads, fillings, icings and other goods. I put the ingredients into a mixing machine bowl or steam kettle to mix or cook them. I roll, cut and shape dough to form rolls, pie crusts, tarts and cookies. I put the dough into pans, molds, or on sheets and bake it in an oven or on a grill. Sometimes I put glaze, icing or other topping on it. What is the name of my job?"

The five sub-parts assessed knowledge of the occupations of baker, machinist, architect, bank teller and locksmith.

The total group of Thirteens performed erratically on this exercise. Ninety-three per cent had one or more sub-parts correct, 77% had two or more correct, 52% had three or more correct, and only 24% had four or more correct. There were numerous sub-part differences on overall performance. In particular, the sub-part describing baker was exceptionally easy with 83% of Thirteens correctly identifying this occupation. On the other hand, the sub-part identifying machinist was only identified by 3% of the Thirteens. The only consistent trend was for whites to score higher than the total group and for blacks to score lower.

Sub-Group Differences on Exercise Sub-Parts

See Table 9, p.104

Table 9 gives percentages of Thirteens who gave correct responses to each of the five sub-parts. The following trends emerged from these data:

1. There are decided differences in Thirteens' knowledge of the five occupations.
2. There is some evidence of sex differences in knowledge of occupations.
3. There is a consistent trend for whites to score higher than the total group and for blacks to score lower than the total group.
4. The Post-H.S. group scored consistently higher than the No-H.S. group on all sub-parts.

Correctly Identify Occupational Work Requirements

The third exercise (102013) which assessed occupational knowledge contained nine multiple choice sub-parts. Each of the nine presented a question about an occupation and listed four possible choices. For example:

"Which of the following jobs requires heavy lifting, crawling and bending?

_____ Automobile Repairman

_____ Salesman

_____ Barber

_____ Railroad Engineer"

The nine sub-parts assessed knowledge of the occupations of automobile repairman, secretary, accountant, chemist, x-ray technician, carpenter, social worker, watch repairman and secretary.

As a total group, Thirteens did well on this exercise. Ninety-eight per cent had four or more correct, 88% had six or more correct, and 71% had seven or more correct. There were a few sub-part

differences on overall performance with the item describing x-ray technician exceptionally difficult and only 11% of Thirteens correctly identifying this occupation. On the other hand, such items as secretary were easily identified by 96% of Thirteens.

Sub-Group Differences on Exercise Sub-Parts

See Table 10, p.105

Table 10 gives percentages of Thirteens who gave correct responses to each of the nine sub-parts. These data point to a number of trends:

1. Sex differences seem apparent in knowledge of certain occupations. Males were better able to identify certain occupations stressing mechanical or tool knowledge (carpenter, watch repairman) and female jobs demanding interpersonal and clerical skills (accountant, social worker, secretary).
2. With the exception of one of nine categories, whites scored higher than blacks in identifying occupational work requirements.
3. Parent education level influenced performance with the Post-H.S. group scoring higher than the No-H.S. group on all but two of the nine occupation categories.
4. Thirteens differ in their knowledge of the job requirements of these nine occupations.

Correctly Identify Earning Power of Occupational Description

The fourth exercise (102036) which assessed occupational knowledge contained five multiple choice sub-parts. Each of these five presented a question about four distinct occupations and asked which of the four earned the most money. For example:

"Which person usually earns the most money?

_____ Plumber

_____ Tailor

_____ Bus Driver

_____ Watchman"

The five sub-parts assessed knowledge of the occupations of plumber, chemist, electrical engineer, secretary and physician.

The total group of Thirteens had some difficulty with this exercise. Three-fourths of the Thirteens had two or more correct, however, only 44% were able to identify three or more correct, and only 18% had four or more correct. The category of chemist received the highest percentage (62%) and the category of plumber (37%) proved most difficult. A consistent trend was for whites to score higher than the total group and for blacks to score lower. Also, the Post-H.S. group scored significantly higher than all other parent education groups on all five sub-parts.

Sub-Group Differences on Exercise Sub-Parts

See Table 11, p.106

Table 11 gives percentages of Thirteens who gave correct responses to each of the five sub-parts. Several trends emerge from these data:

1. There are considerable differences in Thirteens' knowledge of the earning power of the occupations listed in exercise 102036.
2. There is some evidence of sex differences in knowledge of occupational earning power.
3. There is a consistent trend for whites to score higher than the total group and for blacks to score lower than the total group.
4. There is a consistent trend for parent education level to influence performance with the Post-H.S. group scoring higher than the total group and the No-H.S. group to score lower than the total group.

RELATE OWN PERSONAL CHARACTERISTICS TO OCCUPATIONAL REQUIREMENTS

The process of human development offers numerous possibilities to individuals for periodic self-assessment. In particular, as individuals reach junior high school age they have been afforded many opportunities at school, at home and in their peer group for feedback on their strengths and weaknesses. A major aspect of career development is related to the individuals' knowledge of their own personal characteristics and how these are associated with possible success in present or future occupational purusits. COD contained one exercise that assessed Thirteens' current interests and the usefulness of that

interest in a job. The results of this exercise provide data which can help you understand Thirteens' current interests and how they relate these interests to present and future job possibilities.

Identify Current Interest and Relate to Job Possibility

This exercise (103002) which asked about personal interests and the relation of these interests to work, contained four sub-parts. The four sub-parts read as follows:

A. Are you interested in a hobby, sport, game or activity that might be useful for a job?

B. What ONE hobby, sport, game or activity are you interested in that might be useful for a job?

C. For what job might this be useful?

D. How would an interest in (response from B) be useful to (response from C)?

See Table 12, p.107

Table 12 gives the percentages of Thirteens who felt they had a hobby, sport, game or activity that might be useful for a job. Almost three-fourths (72%) of Thirteens indicated they had a present interest of some use in securing a job. A higher percentage of males (82%) and a lower percentage of females (64%) gave a positive response to this sub-part.

See Table 13, p.107

When asked to actually list one hobby, sport, game or activity that might be useful for a job, almost three-fourths (70%) of Thirteens were able to identify such an interest. A higher percentage of males (80%) and a lower percentage of females (64%) were able to complete this question.

Categories Seen Useful for Job

Sub-part B of exercise 103002 asked Thirteens to specify a hobby, sport, game or activity that might be useful for a job. Seventy per cent of Thirteens responded to this question using seven response categories.

See Table 14, p.108

Table 14 gives the percentages of Thirteens who selected one hobby, sport, game or activity that might be useful in a job. The response category with the least amount of interest was games (.4%) followed closely by household skills (1%). The response category with the greatest amount of interest was group sports (32%) followed by individual sports (13%).

Group Differences

As Table 14 indicates, there were differences among sub-groups for sub-part B of exercise 103002. These differences were most noticeable between males and females. Males overwhelmingly selected group sports (52%) as the area they felt most useful in considering a job. To a lesser extent, males also favored hobbies and crafts (12%) and individual sports (9%). On the other hand, females clustered their

main interests around three areas: individual sports (17%), group sports (15%) and music/art (13%). Racially, blacks selected group sports (47%) significantly higher than the total group while whites were significantly lower than the total group on group sports (30%). Whites were significantly higher than the total group on individual sports (15%) while blacks were significantly lower than the total group on individual sports (7%). Parent educational level showed the No-H.S. group significantly higher on group sports (53%) with the Post-H.S. group significantly lower (26%). Also, the Post-H.S. group scored significantly higher on individual sports (16%) and hobbies and crafts (10%) than did the No-H.S. group on individual sports (10%) and hobbies and crafts (5%).

How Interests Relate to Jobs

Sub-part C of exercise 103002 asked Thirteens to relate their interests to how these might be utilized in jobs. Fifty-nine per cent of Thirteens were able to respond to this question and thei responses were placed in three categories: professional or doing the same thing as their interest or activity, a teacher in their area of interest or activity, and a direct relationship or close indirect relationship to their interest or activity. The majority of Thirteens responding to this question selected professional, or doing the same thing as their interest or activity.

See Table 15, p.109

Group Differences

Table 15 indicates that all sub-groups responding to this sub-part selected professional as their first preference. In addition, the table shows:

1. A significant percentage of males (48%) stated they would use their interest or activity professionally than did females (23%). On the other hand, a significant percentage of females (17%) indicated they viewed themselves as teachers of their area of interest as contrasted with a significant low percentage (4%) of males.
2. Racially, there were few significant differences on this sub-part. Only in the response category of teacher of hobby, game or activity was a significant difference noted in a low percentage (8%) of blacks compared to whites selecting this category.

PLAN FOR CAREER DEVELOPMENT OR CHANGE

As Thirteens proceed through the departmentalized curriculum of most junior high schools, it becomes important for them to associate the subjects they are taking to their own tentative career goals. Thirteens should begin to relate the educational experiences they are receiving in school to the training basic to most occupations. However, in considering the relationship between schooling and future occupation, Thirteens need to be aware that in a rapidly-changing society there are many patterns of career development. As a consequence, young people need to keep their career options open and flexible as they contemplate

the years ahead. The COD assessment contained four exercises related to planning for career development or change. The exercises attempted to find out what subjects now taken in school were seen by Thirteens as useful in a job. In addition, the exercises asked Thirteens what factors they would consider in choosing a job or career, what they could do at the present time to find out more about a future career and what kinds of jobs Thirteens would like in the future.

Associating School Subjects with Possible Jobs

The first exercise for this objective (104003) asked the questions:

A. Is there ONE subject you have taken in school that taught you something that might be useful for a job?

Students not responding to this question with a yes terminated the exercise at that point. Students answering with a yes were then asked in sub-part B to name the school project.

See Table 16, p.109

Table 16 gives percentages of Thirteens who gave a yes response to the question of whether they had taken a school subject of use in a job. A high proportion of Thirteens (89%) felt some school subject they had taken might be useful for a job. There were no noticeable differences in the responses of males and females to this sub-part. Racially, a much higher percentage of whites (91%) than blacks (83%) answered positively to this question. Parent education level differences

were also evident with the total Post-H.S. group scoring higher and the No-H.S. group scoring lower than the total group.

See Table 17, p.110

Table 17 summarizes the choices of Thirteens concerning the school subjects they felt taught them something useful for a job. As the table shows:

1. Of the eleven possible categories of school subjects, the majority (45%) of Thirteens selected math, followed by English (11%) and science (9%). These three subjects account for three-fourths of the subject choices of Thirteens.
2. There are sex differences with females favoring such subjects as English, foreign language, business education and home economics. Males tended to favor such subjects as industrial art and vocational education.
3. Racially there were few differences in choice of school subject. Whites selected math (46%) and science (10%) with a higher percentage than blacks, and blacks selected science (4%) less than whites.
4. Parent education level had little influence on Thirteens choice of school subject. Only in the areas of home economics and vocational education did the No-H.S. group score significantly less than the Post-H.S. group.

Career Awareness and Future Planning

Three additional exercises under the COD objective, "Plan for career development or change," dealt with Thirteens' awareness of careers and jobs. The first exercise (104009) examined Thirteens' ability to organize for career and job exploration. It asked the question:

> "On this and the following page list ten different things that a person should think about in choosing a job or career."

Eighty-five percent of Thirteens attempted to answer exercise 104009. Slightly over three-fourths of Thirteens were able to list at least three things to think about in choosing a job or career. However, only 58% of Thirteens could give one or more acceptable response and only 10% completed all ten responses.

A second exercise (104011) required Thirteens to think more in immediate terms in dealing with a job. This question asked Thirteens:

> "Suppose you want to find out more about a job you are interested in. What are five things you could do NOW to find out more about the job before you take the job or begin job training?"

There were seven acceptable response categories for exercise 104011.

See Table 18, p.111

Table 18 gives percentages of Thirteens listing at least one acceptable response to how to find out more about a job. Almost

fifty per cent (48%) of Thirteens favored talking to or observing people in the field as the major means of finding out more about a job. The next favored means of Thirteens were obtaining and reading material about a job (37%) and contacting a personnel office or employment office (28%). The means least considered by Thirteens in finding out more about a job were getting information from a school or professional association (2%), talking to a teacher (3%) and going to a counselor, advisor or guidance office (5%).

The final exercise (104015) under the COD objective, "Plan for career development or change," asked Thirteens about future jobs and the relation of these jobs to the personal qualities of Thirteens. The first sub-part of exercise 104015 asked Thirteens:

> "Have you ever thought about the kind of job you would like to have in the future?"

See Table 19, p.111

Table 19 gives percentages of Thirteens who indicated they have thought about a job they would like to have in the future. Eighty-six per cent of Thirteens stated that they had thought about a future job. Of this number, a significant difference was seen between males and females with 89% of females responding positively as contrasted with 82% of the males.

Exercise 104015 also asked Thirteens to list five jobs they had considered as a future employment possibility. They were then asked to select the one job they were most interested in doing.

See Table 20, p.112

Table 20 indicates the eleven most popular job choices of Thirteens. It is of note that the top three choices of Thirteens are professional positions calling for long periods of training. On the other hand, the lowest three among the top eleven are jobs requiring shorter periods of training. Sex differences were quite apparent among Thirteens with females' highest choices being teacher/educator (18%), nurse/pharmacist (16%), doctor/dentist (11%) and office worker (9%). The combined responses for males were much lower than females in general, and males scored highest in recreation professional (12%), doctor/dentist (8%) and scientist/engineer (7%). Parent education level produced a number of differences among the No-H.S. group and Post-H.S. group. The Post-H.S. group scored markedly higher on jobs requiring the longest training periods, such as doctor/dentist (12%) and scientist/engineer (6%) as contrasted with the No-H.S. group on doctor/dentist (2%) and scientist/engineer (1%). On the other hand, the No-H.S. group had a much higher percentage on teacher/educator (16%) and professional/technical (10%) than did the Post-H.S. on teacher/educator (11%) and professional/technical (4%).

OBJECTIVE II: IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

The second broad COD objective assessed was, "Improve career and occupational capabilities." This objective focused on the extent to which Thirteens have engaged in activities and experiences that will

widen their occupationally relevant knowledge and skills. The COD assessment contained five exercises related to this objective. The exercises provide an overview of the number and types of activities and experiences in which Thirteens participate related to the broad areas of home chores, part-time or summer jobs, out of school lessons, hobbies, and community resource visits.

Work Done at Home

The first exercise for this objective (200002) asked the question:

"What work do you do to help out at home?"

Responses were scored as acceptable if an actual work activity was given. Students were encouraged to give up to three or more responses.

See Table 21, p.113

Table 21 gives percentages of Thirteens who gave at least one and at least two acceptable responses. The table shows:

1. The vast majority (98%) of Thirteens can state one type of work they do at home with only a slightly lower amount (95%) stating two.
2. There are consistent sex differences with more females and fewer males than the total group stating work they do at home.

3. There are consistent racial differences with more whites and fewer blacks than the total group stating work they do at home.
4. There are consistent parent educational level differences with more in the Post-H.S. group and fewer in the No-H.S. group stating work they do at home.

Visits to Places of Interest in the Community

Another exercise (200010) assessed the experiences of Thirteens which have helped to improve their occupational capabilities by asking them to indicate whether or not they had visited eleven places of interest in their community. The places of interest were a dairy, a newspaper plant, a museum, a zoo, a planetarium, an aquarium, a factory, a college, a farm, a library, and an airport. Of the total group, 100% had visited at least one place, 92% had visited at least six places, 69% had visited at least eight places and 26% had visited at least ten places.

Sub-Group Differences

See Table 22, p.114

Table 22 presents percentages for sub-groups indicating these differences:

1. With few exceptions, the S.E. group had consistently lower percentages than the total group, and the Western group,

with one exception, had higher percentages than the total group.

2. For most of the items, females had a lower percentage and males had higher percentages than the total group.
3. There is a consistent trend for whites to have higher percentages and blacks to have lower percentages than the total group.
4. The Post-H.S. group in all eleven categories had percentages at or above the total group. The No-H.S. group had percentages below the total group in seven of eleven categories.

Participation in Out-of-School Training and Lessons

An important source in improving career and occupational capabilities is out-of-school lessons and training. One exercise (200016) asked Thirteens to list up to five out-of-school learning experiences which they have had.

"List any lessons, training or courses you have taken outside of regular school. These can include lessons taken during summer school, summer camp, special classes, music lessons and so forth."

See Table 23, p.115

Table 23 summarizes the responses for the total group and various sub-groups for the exercise. Major trends suggested are:

1. Although over three-fourths of Thirteens can list one out-of-school learning experience, less than two-thirds can list two such experiences. Percentages dropped to 42% for three and 26% for four out-of-school learning experiences.
2. There are geographic differences with a consistent trend for the West to have higher percentages and the Central group to have lower percentages than the total group.
3. There are sex differences with males having consistently lower percentages and females having higher percentages than the total group.
4. There are racial differences with whites having higher and blacks lower percentages than the total group.
5. There is a consistent trend in parent educational level for the Post-H.S. group to have higher and the No-H.S. group to have lower percentages than the total group.

Self-Perception of Specific Work Related Skills

A third exercise (200017) under COD Objective II focused on Thirteens' self-perceptions of whether they had done specific work related tasks without assistance from others. This exercise asked Thirteens whether they have done the following activities without help (percentages are of the total group who had done the activity):

Babysat, 80%

Baked a cake or pie, 59%

Built something out of wood, 67%

Carved something out of wood or soap, 66%

Changed sheets on a bed, 88%

Cook a complete meal, 49%

Designed something to make, 71%

Drawn a map, 78%

Invented a game, 60%

Ironed clothes, 78%

Knitted, 37%

Made a toy, 54%

Made clothing for self, 27%

Painted some object, 91%

Planted vegetables or flowers, 84%

Put batteries in a flashlight, 98%

Ordered something from a catalog, 46%

Repaired a bicycle, wagon or roller skates, 78%

Set the time on a clock, 96%

Shopped at the store by self, 94%

Taken own temperature, 56%

Used a card catalog in a library, 92%

Washed dishes, 93%

Washed windows, 88%

Written a letter, 96%

Written a report, 95%

Of the twenty-six activities, 99% of the Thirteens have done at least ten without help, 79% have done at least seventeen, 49% have done at least twenty, and 26% have done at least twenty-two without help.

Sub-Group Differences

The twenty-six skills used in this exercise clustered in several areas. Two areas, one related to household related skills and another to maintenance-building skills, showed some major differences in sex, race and parent educational level.

See Table 24, p.116

Table 24 summarizes these sub-group differences for the household and maintenance-building clusters. As the table indicates:

1. There is a consistent trend for females to score higher and males to score lower than the total group on selected skills in the household cluster.
2. There is a consistent trend for males to score higher and females to score lower than the total group on selected skills in the maintenance-building cluster.
3. There is a consistent trend for whites to score higher and blacks to score lower than the total group in the maintenance-building cluster.
4. There is a consistent trend for the Post-H.S. group to score higher and the No-H.S. group lower than the total group on selected skills in the household cluster.
5. There is a consistent trend for the Post-H.S. group to score higher and the No-H.S. group lower than the total group on selected skills in the maintenance-building cluster.

Efforts to Obtain Work or Actual Paid Experience

A final exercise (200020) attempted to assess Thirteens initiative in seeking part-time or summer work. This exercise also asked why Thirteens had sought work and asked if they had ever actually worked for pay. Finally, Thirteens were asked if they had ever done unpaid or voluntary work.

See Table 25, p.117

Table 25 indicates the percentages of Thirteens reporting on job-seeking behavior. The table shows:

1. Eighty-seven per cent of Thirteens have had a paid work experience at some point in their life.
2. Well over fifty per cent of Thirteens have at some point done volunteer or unpaid work.
3. A higher percentage of males than females have both tried to obtain a job, have actually had a paid job and have done unpaid volunteer work.
4. A higher percentage of blacks have tried to obtain a job than whites.
5. A higher percentage of whites than blacks have actually worked for pay.
6. A higher percentage of whites and a lower percentage of blacks than the total group have done unpaid, volunteer work.
7. A higher percentage of the Post-H.S. group than the No-H.S. group have both looked for a job, worked for pay and done unpaid or volunteer work.

OBJECTIVE III: POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

The third broad COD objective assessed was "Possess skills that are generally useful in the world of work." Sub-objectives included are:

A. Have generally useful numerical skills.

B. Have generally useful communication skills.

C. Have generally useful manual-perceptual skills.

D. Have generally useful information processing and decision-making skills.

E. Have generally useful interpersonal skills.

F. Have employment-seeking skills.

NUMERICAL SKILLS

The assessment had six exercises to measure numerical skills. These exercises concentrated on Thirteens' skills in following directions involving arithmetic and mathematics, in using measurement equivalents and ratios, in reading graphs and floor plans, in understanding fractions, in conversion problems and in solving mathematical word problems. The first exercise (301005) asked Thirteens to read a bar graph that contained three parts. The second exercise (301010) asked Thirteens to analyze a set of floor plans of an office and shop area and to answer three questions about the footage in this area.

See Table 26, p.118

Table 26 presents the percentages of Thirteens giving correct responses for each of the sub-parts of two numerical skill exercises dealing with reading a bar graph and analyzing a set of floor plans. As the table indicates:

1. In general, Thirteens were able to read and comprehend a bar graph. On two of three sub-parts, at least 80% of Thirteens could solve problems dealing with a bar graph.

2. In general, Thirteens had difficulty in analyzing a floor plan. Only 53% of Thirteens could find correct dimensions from this floor plan and only slightly more than one-fourth (27%) could find the square feet of floor space based on the actual dimensions.

3. There is a strong trend for the S.E. and a slightly weaker trend for the West group to have lower percentages of correct responses than the total group. The N.E. group consistently had higher percentages than the total group.

4. There is a consistent trend for females to have higher percentages on the bar graph problems and for males to have lower percentages than the total group.

5. There is a consistent trend for males to have higher percentages on the floor plan problems and for females to have lower percentages than the total group.

6. There is a consistent trend for whites to have significantly higher percentages and for blacks to have lower percentages than the total group.

7. There is a consistent trend for the Post-H.S. group to have significantly higher percentages and the No-H.S. group to have lower percentages than the total group.

Another set of exercises assessed Thirteens' numerical skills in using measurement equivalents, fractions, ratios and proportions. The first exercise (301011) asked:

"Which of the fractions below is LARGER than .75?

_____ 9/12 _____ 6/17

_____ 7/8 _____ 17/25"

The second exercise (301014) asked:

"A. 30 inches = _____ feet

B. 2 feet = _____ inches

C. 45 seconds = _____ minutes

D. 1 minute = _____ seconds

E. 16 ounces = _____ pounds

F. 1 1/2 pounds = _____ ounces

See Table 27, p.119

Table 27 presents the percentages of Thirteens giving correct responses to numerical skills involving the use of measurement equivalents, fractions, ratios and proportions. As the table indicates:

1. The overall performance of Thirteens was erratic and scattered. Only slightly over fifty per cent were successful on the fraction sub-part. In a similar vein, under fifty per cent were able to convert 30 inches to feet and 45 seconds to minutes. On the other hand, on three conversion problems over eighty per cent of Thirteens were successful.
2. There is a consistent trend for the Central and N.E. groups to have higher percentages of correct responses than the total group. The S.E. group had consistently lower percentages than the total group.
3. There is a consistent strong trend for males to have higher percentages and for females to have lower percentages than the total group.

4. There is a consistent trend for whites to have significantly higher percentages and blacks to have lower percentages than the total group.

5. There is a strong trend for the Post-H.S. group to have higher percentages and for the No-H.S. group to have lower percentages than the total group.

Another exercise (301019) assessed Thirteens' numerical skill in reading a table containing whole numbers and fractions. This question asked:

SIZE TABLE FOR SOCKS			
Shoe Size	Sock Size	Shoe Size	Sock Size
6 - 6 1/2	9 1/2	9 - 9 1/2	11
7 - 7 1/2	10	10 - 10 1/2	11 1/2
8 - 8 1/2	10 1/2	11 - 11 1/2	12

"According to the table, what size socks should you buy if you wear a size 10 shoes?

_____ 7 _____ 10 _____ 11

_____ 7 1/2 _____ 10 1/2 _____ 11 1/2"

See Table 28, p.120

Table 28 indicates the percentages of Thirteens giving correct responses to the numerical problem involving reading a table of fractions and whole numbers and determining correspondence

between shoe and sock size. The table reveals:

1. In general, exactly two-thirds of Thirteens gave correct responses to this exercise.
2. The Central group scored significantly higher than the total group with the N.E. group slightly lower but still above the total group. The S.E. group had a significantly lower percentage than the total group with the West group also slightly below the total group.
3. Females had a significantly higher percentage than the total group and males a lower percentage than the total group.
4. Whites had a significantly higher percentage than the total group and blacks a lower percentage than the total group.
5. The Post-H.S. group had a higher percentage than the total group and the No-H.S. a lower percentage than the total group.

The final exercise (301032) assessing Thirteens' numerical skills involved a mathematical word problem involving multiplication and subtraction skills. The question asked:

"Suppose you purchased $200.00 worth of merchandise from a store on an installment plan. You are to make 24 monthly payments of $11.35 each. How much money in finance charges will you have paid at the end of two years?"

See Table 29, p.120

Table 29 indicates the percentages of Thirteens giving correct responses to a numerical problem involving the reading of a mathematical question and the execution of two consecutive arithmetic skills. As the table reveals:

1. In general, Thirteens performed very poorly on this exercise. Only 11% of Thirteens were able to correctly complete the problem.
2. The West group had a significantly higher percentage than all other groups on this problem and the Central group a significantly lower percentage than the total group.
3. There were no significant differences between males and females.
4. Whites had a significantly higher percentage and blacks a lower percentage than the total group.
5. The Post-H.S. group had a significantly higher percentage than the total group, and the No-H.S. group a significantly lower percentage than the total group.

COMMUNICATION SKILLS

Four exercises were used to assess the communication skills of Thirteens. One exercise (303005) tapped Thirteens' ability to comprehend a set of instructions and then to execute a stated task. This exercise asked Thirteens to read a description of three pieces of merchandise and then to fill out an order blank to order one each of the three items. The final part of this exercise called for Thirteens to add up the total amount of these three items.

A second communication skills exercise (302015) focused on Thirteens' skills in communicating understandably. During the exercise, Thirteens addressed an envelope after being given the information needed to complete the task. Their responses were scored based on the accuracy of the return home, return address, return city, name, address, city-state-zip.

Two other exercises explored Thirteens' skills related to understanding spoken and written instructions. Spoken instructions were used in exercise 302010 in which students were given a map, given instructions orally and asked to mark the spot of the map indicated by the instructions. Another exercise (302020) assessed skills in following written instructions by giving the students a name to find in a telephone book.

See Table 30, p.121

The results of the communication skills exercise are summarized in Table 30 indicating the following:

1. With the exception of the order blank exercise, over three-fourths of Thirteens gave correct responses to these communication exercises.
2. Regionally, only the Central group scored consistently higher than the total group on all exercises.
3. With the exception of the map exercise, females scored significantly higher and males lower than the total group.

4. Racial differences were evident with whites higher and blacks lower than the total group.
5. Parent educational level differences are present with Post-H.S. higher and No-H.S. lower than the total group.

MANUAL-PERCEPTUAL SKILLS

Two exercises related to manual-perceptual skills focused specifically on Thirteens' skills in reading displays and scales. The first (303008) had students use a ruler to measure a line. The second (303011) had Thirteens read a point on a two-cup measuring cup. A final exercise (303012) presented four geometric figures (sphere, cube, cylinder, pyramid) and asked Thirteens to reproduce these figures on a separate piece of paper.

See Table 31, p.121

Table 31 which summarizes the results for manual-perceptual skills indicates that:

1. Almost three-fourths of Thirteens were able to correctly perform the three exercises.
2. Regional differences were evident to a slight extent in that the S.E. group scored consistently below the total group on all exercises. There were differences among other regional groups, but they were specific to the exercise.
3. Sex differences were evident only in the exercise related to measuring a line where males were higher and females lower than the total group.

4. Racial differences were present with whites higher and blacks lower than the total group on all exercises.
5. Parent educational level differences are present with Post-H.S. higher and No-H.S. lower than the total group on all exercises.

INTERPERSONAL SKILLS

There were three exercises which assessed Thirteens' interpersonal skills. These exercises focused on Thirteens' ability in working effectively with peers, co-workers, and others. One exercise (305010) required Thirteens to listen to a story about a boss and to then give examples of four things the boss did best and four things the boss did worst.

Another exercise (305008) under interpersonal skills had two parts and asked:

"A. Have you ever helped anyone with school work that he could not do by himself?

B. What did you do to help that person with his school work?"

A final exercise (305009) asked the question:

"Suppose you knew someone who spoke no English. How would you help him get along?"

Students were then encouraged to give five answers to the exercise.

See Table 32, p.122

Thirteens' performance on the interpersonal skills exercises are summarized in Table 32:

1. The vast majority of Thirteens were able to give acceptable responses on the interpersonal skills exercises.
2. Sex differences were apparent in that a higher percentage of females and a lower percentage of males scored correct responses on both exercises.
3. Racial differences were present on both items with whites higher and blacks lower than the total group.
4. There was a consistent trend for the Post-H.S. group to score higher and the No-H.S. group to score lower than the total group.

EMPLOYMENT-SEEKING SKILLS

Only one exercise for Thirteens assessed their employment seeking skills. This exercise (306006) asked:

"List five kinds of part-time work people your age do to earn money in or near your town."

See Table 33, p.122

Table 33 summarizes the acceptable responses indicating:

1. Eighty-six per cent of Thirteens knew something of part-time work for people their age and over three-fourths could list three kinds of appropriate part-time work. Fully 64% of all Thirteens completed the entire exercise correctly.

2. There were no sex differences on this exercise.

3. Whites scored higher than blacks.

4. The Post-H.S. group scored higher than the No-H.S. group.

OBJECTIVE IV: PRACTICE EFFECTIVE WORK HABITS

The fourth broad COD objective assessed was, "Practice effective work habits." This objective had five sub-objectives:

A. Assume responsibility for own behavior.

B. Plan work.

C. Use initiative and ingenuity to fulfill responsibilities.

D. Adapt to varied conditions.

E. Maintain good health and grooming.

This assessment had three exercises related to sub-objective A and two exercised related to sub-objective C. The other three sub-objectives were not assessed.

ASSUME RESPONSIBILITY FOR OWN BEHAVIOR

Three exercises explored the extent to which Thirteens know they are responsible for their own behavior. The first (401003) presented this cartoon.

See Cartoon, p.127

It then asked students to indicate whose fault it was that Mary did not get the bread by responding to one of the following:

Choice 1: Tom's fault because he talked too long.

Choice 2: No one's fault because Mary didn't want to be rude to Tom.

Choice 3: Tom's fault because he wouldn't let Mary leave.

Choice 4: Mary's fault because she talked too long (correct answer).

See Table 34, p.123

Table 34 summarizes Thirteens' responses to the exercise indicating:

1. Only 23% of Thirteens gave the correct response. The largest percentage (39%) saw no one at fault in this problem.
2. With the exception of a larger number of females seeing no one at fault in the problem, there were no sex differences.
3. A higher percentage of blacks and a lower percentage of whites tended to find no one at fault in the problem. Whites scored a significantly higher percentage of correct responses than blacks.
4. The Post-H.S. group had a higher percentage of correct responses to this problem than did the No-H.S. group.

A second exercise (401009) assessing Thirteens' responsibility for their own behavior asked a hypothetical question on safety regulations. The question read:

"Suppose you are a factory worker operating a machine which has a special safety shield on it. You are required to put up the safety shield whenever the machine is being used so that hot pieces of metal which come off the machine cannot hit and burn other workers. One day you are operating the machine without putting up the safety shield. A piece of hot metal flies through the air and severely burns another worker who was in a place where he wasn't supposed to be."

The exercise then contained the following two sub-parts:

"A. Are you responsible for the injury to the other person?

B. Please give a reason for your answer."

See Table 35, p.124

Table 35 presents the percentages of Thirteens giving correct responses for the two sub-parts of exercise 401009. As the results indicate:

1. Nearly three-fourths of all Thirteens gave an acceptable response for assuming responsibility and a similar percent were able to give an appropriate reason for their response.
2. Regional differences were evident in that the Central group consistently had a higher percentage than the total group and the S.E. group a lower percentage than the total group.
3. There were no significant sex differences.
4. Racially, whites had a higher percentage of correct responses than the total group and blacks had a lower percentage than the total group.

5. The Post-H.S. group scored significantly higher than the total group on both items and the No-H.S. group scored lower than the total group on both items.

A final exercise (401013) gave information about Thirteens' behavior related to observing rules and regulations while questioning those they believe are unfair. It read:

"Suppose your school made a new rule that you thought unfair. What would you do? (Give two things.)"

Two-thirds of all Thirteens were able to state one acceptable method of changing an unfair rule while only 46% were able to state two acceptable methods. Acceptable responses reflected several methods of seeking change including: protest or petition, discuss with someone with authority, seek aid of elected represenative, talk with peers, and discuss with someone without direct authority.

Most Thirteens who had given acceptable responses (53%) indicated that they would discuss the rule with an authority such as the principal. The next highest category was to talk to a peer (13%), followed by enlisting the aid of some elected representative (12%), and protest or petition (11%).

USE INITIATIVE AND INGENUITY TO FULFILL RESPONSIBILITIES

Another aspect of practicing effective work habits is using initiative and ingenuity to fulfill personal responsibilities. Two exercises related to this area.

The first (403004) related to Thirteens' resourcefulness in completing a task. Thirteens were given a model of two pieces of paper which had been folded and stapled, and were asked to do the same with

two other pieces of paper. Their product was scored according to the criteria: papers folded, folded in the correct place, and stapled in the correct place. The vast majority of Thirteens (97%) completed at least two parts of the task correctly.

A second exercise (403005) examined Thirteens' willingness to seek assistance when needed. It asked the question:

> "Suppose you are the only person given a job to do by your teacher. You are to get the job done by tomorrow, but you don't quite understand just what it is that you are to do. What would you do to get the job done?"

The acceptable response was to ask the teacher for clarification of the job. An interesting unacceptable response was to ask or get help from someone other than the teacher.

See Table 36, p.124

Table 36 presents the results of the exercise indicating that:

1. A high percentage (88%) of Thirteens would seek help from the teacher.
2. Only a slight percentage (5%) of Thirteens would consider the unacceptable response of asking another person about the job.
3. Regional differences indicate that a higher percentage of the Central and N.E. group and a lower percentage of the S.E. group would ask the teacher.
4. A higher percentage of females and a lower percentage of males would ask the teacher.

5. A higher percentage of whites and a lower percentage of blacks would ask the teacher.
6. Parent education levels were evident with a higher percentage of the Post-H.S. group and a lower percentage of the No-H.S. group indicating they would ask the teacher.

OBJECTIVE V: HAVE POSITIVE ATTITUDE TOWARD WORK

The fifth broad COD objective assessed was, "Have positive attitude toward work." This objective had four sub-objectives:

A. Recognize the basis of various attitudes toward work.
B. Hold competence and excellence in high regard.
C. Seek personal fulfillment through own achievements.
D. Value work in terms of social goals.

This assessment contained one exercise related to sub-objective A, two exercises related to sub-objective C and one exercise related to sub-objective D. Sub-objective B was not assessed.

RECOGNIZE THE BASIS OF VARIOUS ATTITUDES TOWARD WORK

One exercise (501009) attempted to assess Thirteens' recognition of the basis of various attitudes toward work. This exercise asked:

"Give six reasons why some people who are willing to work find it hard to get a good job."

Acceptable responses to exercise 501009 included: racial discrimination, age discrimination, sex discrimination, ethnic discrimination, religious discrimination, overqualified, police record, past drinking or drug proglem, and/or history of mental illness, personality

or attitude, appearance, other discriminatory practices, experience or education, lack of intelligence, physical health, references or past job performance, job not compatible with applicant's requirements, indecisiveness, jobs not available and transportation problem.

See Table 37, p.125

Table 37 which summarizes the acceptable responses for recognizing the basis of various attitudes toward work indicates:

1. The vast majority (94%) of Thirteens could give at least two reasons why people desiring work may find it hard to get a job. Three-fourths were able to give four or more acceptable responses and over half (58%) were able to give five or more responses.
2. Regionally, the N.E. group consistently had a higher percentage of responses than the total group. The S.E. group showed a consistent trend to have a lower percentage than the total group with the West group also showing a lower percentage than the total group.
3. Generally, sex differences were not apparent on this exercise.
4. Racially, a higher percentage of whites and a lower percentage of blacks gave correct responses.
5. A significantly higher percentage of the Post-H.S. group and a lower percentage of the No-H.S. group gave correct responses.

SEEK PERSONAL FULFILLMENT THROUGH OWN ACHIEVEMENT

Two exercises assessed Thirteens' skills in seeking personal fulfillment through own achievements. One exercise (503011) asked:

"Suppose you had to work for a living. Who should make the final decision about the kind of job you would take?"

Acceptable responses were either the student deciding alone, or the student deciding in consultation with others.

See Table 38, p.125

Table 38 summarizes the acceptable responses indicating:

1. Three-fourths of all Thirteens gave an acceptable response.
2. No sex differences were evident.
3. A higher percentage of whites and a lower percentage of blacks gave correct responses.
4. A higher percentage of the Post-H.S. group and a lower percentage of the No-H.S. group gave correct responses.

The percentage of Thirteens giving unacceptable responses to this exercise reveals that 7% would have their parents make the decision, 6% would make the decision jointly with their parents and 5% would have a person other than their parent make the decision.

Another exercise (503005) related to seeking personal fulfillment through own achievements asked Thirteens if they would enjoy doing the following things if they were a millionaire: building houses and gardens, giving to charity, learning new things, raising race horses, and traveling.

See Table 39, p.126

Table 39 indicates that the sub-group differences for the exercise were:

1. There was a range of total group responses with travel, learn new things, and give to a charity being higher, raise race horses middle, and build houses and gardens lower.
2. Compared to the total group, females were higher and males lower on all items but build houses and gardens.
3. Compared to the total group, blacks were higher and whites lower on build houses and gardens and learn new things. Blacks were lower and whites higher on give to a charity, raise race horses and travel.
4. Compared to the total group, the No-H.S. group were higher and the Post-H.S. group lower on learn new things and raise race horses, and the Post-H.S. group was higher and the No-H.S. group lower on build houses and gardens, give to a charity and travel.

VALUE WORK IN TERMS OF SOCIETAL GOALS

One exercise (504005) assessed Thirteens' ability to value work in terms of societal goals. This exercise asked:

"In our country we have child labor laws which do not allow children to work at regular jobs. Should we continue to have such laws?"

See Table 40, p.126

Table 40 summarizes the acceptable responses indicating:

1. Ninety per cent of Thirteens had a definite opinion regarding this question.
2. Thirteens were quite evenly divided on this question. Forty-six per cent of Thirteens favored child labor laws and 44% felt they should not be continued.
3. A higher percentage of males than females were in favor of not continuing child labor laws and a higher percentage of females than males favored continuing child labor laws.
4. There were no significant racial differences.
5. A significantly higher percentage of the Post-H.S. group than the No-H.S. group favored continuing child labor laws and a higher percentage of the No-H.S. group than the Post-H.S. group favored not continuing child labor laws.

SUMMARY

This section has presented a comprehensive overview of the results of all of the released exercises used in the COD assessment for Thirteens. Included are a description of the sub-objectives which were assessed, the nature of the exercises, the percentages of Thirteens who gave acceptable responses and the important differences in response percentages for various selected sub-groups.

TABLE 1

PERCENTAGES OF THIRTEENS LISTING STRENGTHS AND LIMITATIONS,
EXERCISE 101003

Acceptable Responses	Part A Can Do Well	Part B Cannot Do Well
One	95	92
Two	88	81

TABLE 2

PERCENTAGES OF THIRTEENS USING RESPONSE CATEGORIES,
EXERCISE 101003

Response Category	Part A Can Do Well	Part B Cannot Do Well
Games	1	1
Group Sports	35	27
Individual Sports	42	35
Art/Musical	26	24
Hobbies and Crafts	7	4
School or Academic	20	27
Household Skills	13	14

TABLE 3

SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN MALES AND FEMALES
FOR RESPONSE CATEGORIES
EXERCISE 101003

Response Category	Part A - Can Do Well		Part B - Cannot Do Well	
	Males	Females	Males	Females
Group Sports	53*	17*	34*	21*
Individual Sports	42	42	34	36
Art/Musical	15*	37*	18*	29*
School or Academic	18*	23*	28	27
Household Skills	3*	23*	8	20

*In all tables, indicates that the percentage for the sub-group is significantly different (differs by more than two standard errors from the total group) than the percentage for the total group.

TABLE 4

PERCENTAGES OF THIRTEENS LISTING ACCEPTABLE RESPONSES TO
QUESTIONS RELATED TO EVALUATING AND IMPROVING THEIR ABILITIES,
EXERCISES 101005 AND 101013

Acceptable Response	Percentage
List one thing you would like to do better (101005-A)	95
Tried to find out how you could do it better (101005-D)	74
Have asked someone how to do something better (101013-A)	81
Stated what it was you asked someone how to do better (101013-B)	77

TABLE 5

PERCENTAGES OF THIRTEENS RESPONDING TO SELF-EVALUATION CATEGORIES OF HOW WELL THEY DO COMPARED TO OTHERS, EXERCISE 101005

Response Category	Total Group	Sex		Race	
		Male	Female	Black	White
I do it better than most my age	36	40*	33*	38	36
I do it the same as most my age	34	35	34	27*	36*
I do it worse than most my age	16	14*	18*	15	16

TABLE 6

PERCENTAGES OF THIRTEENS RESPONDING TO METHODS OF SUPPORTING SELF-EVALUATION CATEGORIES, EXERCISE 101005

Response Category	Total Group	Sex		Race	
		Male	Female	Black	White
Judge by what others say	21	19*	23*	19	22
Judge by test scores and grades	8	8	8	14*	7*
Personal comparison while doing	13	17*	10*	6*	14*
Personal comparison or piece of data	34	35	34	31	35*
Unacceptable	7				

TABLE 7

PERCENTAGE OF THIRTEENS RESPONDING TO METHODS OF STRENGTHENING ABILITIES CATEGORIES, EXERCISE 101005

Response Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Verification from live source	46	43*	48*	32*	49*	44	49*
Verification from stored source	7	10*	4*	6	7	5	9
Self-evaluation and correction	2	2	2	2	2	2	2
Formal lessons	6	3	8	2	7	2	9
Practice	9	10*	8*	9*	8*	7*	8*

TABLE 8

PERCENTAGES OF THIRTEENS RESPONDING TO FIVE SUB-PARTS, CORRECTLY IDENTIFYING OCCUPATIONAL DESCRIPTIONS, EXERCISE 102002

Occupation Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Nurse	98	98	99	98	99	96	99*
Mailman	97	96	98	95	98	95	99*
Secretary	98	97	98	93*	99*	95	99*
Service Station Attendant	97	96	98	90*	98*	95	98*
Newscaster	96	95	97	89*	98*	89*	98*

TABLE 9

PERCENTAGES OF THIRTEENS RESPONDING TO FIVE SUB-PARTS,
IDENTIFY OCCUPATION FROM A VERBAL DESCRIPTION,
EXERCISE 102011

Occupation Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Baker	83	82	83	71	84	75	86
Machinist	3	4	2	1	3	2	3
Architect	45	43	47	16	50	18	60
Bank Teller	51	54*	47*	28*	54*	35*	63*
Locksmith	65	69*	60*	41*	70*	40*	75*

TABLE 10

PERCENTAGES OF THIRTEENS RESPONDING TO NINE SUB-PARTS,
IDENTIFY OCCUPATIONAL WORK REQUIREMENTS,
EXERCISE 102013

Occupation Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Automobile Repairman	86	86	85	70*	82*	77	87
Secretary	96	95	97	95	96	96	95
Accountant	87	86*	89*	75*	89*	80	91*
Chemist	84	83	85	67*	87*	74*	88*
X-Ray Technician	11	10	12	19*	10*	17	12
Carpenter	72	77*	68*	60*	75*	67	74
Social Worker	77	72*	81*	66*	79*	67*	84*
Watch Repairman	86	88*	84*	69*	89*	75*	91*
Secretary	94	92*	95*	91	94	93	95

TABLE 11

PERCENTAGES OF THIRTEENS RESPONDING TO FIVE SUB-PARTS,
IDENTIFY EARNING POWER OF OCCUPATION,
EXERCISE 102036

Occupation Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Plumber	37	41*	32*	20*	40*	27*	44*
Chemist	62	66*	58*	57	64*	60	65*
Electrical Engineer	38	39	38	38	40	31*	43*
Secretary	50	43*	57*	36*	53*	37*	57*
Physician	47	44*	50*	27*	52*	39	58*

TABLE 12

PERCENTAGES OF THIRTEENS WITH AN
INTEREST OF USE FOR A JOB,
EXERCISE 103002

Response Category	Total Group	Sex		Race		Parent Education	
		Male	Female	Black	White	No-H.S.	Post H.S.
Interested in a hobby, sport, game, or activity of use for a job	72	82	64	77	72	80	74

TABLE 13

PERCENTAGES OF THIRTEENS ABLE TO LIST
AN INTEREST OF USE FOR A JOB,
EXERCISE 103002

Response Category	Total Group	Sex		Race		Parent Education	
		Male	Female	Black	White	No-H.S.	Post H.S.
Listed interest of use for a job	70	80	61	76	70	78	72

TABLE 14

PERCENTAGES OF THIRTEENS LISTING ACTIVITIES
USEFUL FOR A JOB,
EXERCISE 103002

Response Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Games	.4	.3	.6	.3	.4	.3	.7
Group Sports	32	52*	15*	47*	30*	53*	26*
Individual Sports	13	9*	17*	7*	15*	10	16*
Music/Art	9	3*	13*	8	9	2*	10
Hobbies and Crafts	8	12*	4*	5*	8*	5	10*
School/Academic	3	1*	3*	3	3	2	3
Household Skills	1	.1*	2*	1	1	.7	1

TABLE 15

PERCENTAGES OF THIRTEENS INDICATING HOW INTEREST MIGHT BE USEFUL IN JOB, EXERCISE 103002

Response Category	Total Group	Sex		Race	
		Male	Female	Black	White
Professional, doing same thing as hobby, etc.	35	48*	23*	34	35
Teacher in hobby, game, activity	11	4*	17*	8*	11
Direct relationship or close indirect relationship to hobby, game, etc.	13	13	13	13	13

TABLE 16

PERCENTAGES OF THIRTEENS WHO HAVE TAKEN SUBJECT IN SCHOOL OF USE IN A JOB, EXERCISE 104003

Response Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Have taken school subject of use in a job	89	90	88	83*	91*	82	93*

TABLE 17

PERCENTAGES OF THIRTEENS SELECTING A SCHOOL SUBJECT THAT MIGHT BE USEFUL FOR A JOB, EXERCISE 104003

Response Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Math	45	45	44	39	46*	51	45
Science	9	11	8	4*	10*	6	11
English	11	7	14*	13	11	6	11
Art, Music, Drama	2	3	3	2	2	2	3
Social Science	6	6	5	6	6	4	7
Physical Education, Health	1	2	1	3	1	6	1
Foreign Language	2	1*	3*	1	2	1	2
Industrial Art	4	8*	.3*	3	4	5	3
Business Education	3	1	4*	3	2	2	2
Home Economics	2	.1*	4*	3	2	.5*	3
Vocational Education	2	3*	.9*	3	2	.4*	2

TABLE 18

PERCENTAGES OF THIRTEENS LISTING ONE RESPONSE
TO HOW TO FIND OUT MORE ABOUT A JOB,
EXERCISE 104011

Response Category	Percentage
Go to counselor, advisor, guidance office	5
Talk to or observe people in the field	48
Obtain or read material about it	37
Get information from school or professional association	2
Talk to school teacher	3
Contact personnel office, employer or employment office	28
Other acceptable response	18

TABLE 19

PERCENTAGES OF THIRTEENS WHO HAVE THOUGHT ABOUT A JOB
THEY WOULD LIKE IN THE FUTURE,
EXERCISE 104015

Response Category	Total Group	Sex		Race	
		Male	Female	Black	White
Have thought about future job	86	82*	89*	84	87*

TABLE 20

PERCENTAGES OF THIRTEENS WITH OCCUPATIONS MOST CONSIDERED AS FUTURE JOBS
EXERCISE 104015

Response Category	Total Group	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Teacher, educator, librarian	10	2	18	7	11	16	11
Doctor, dentist, vet	10	8	11	10	10	2	12
Nurse, pharmacist	9	.3	16	12	8	12	8
Recreation professional	7	12	3	7	7	8	6
Office worker	5	.1	9	5	4	5	4
Scientist, engineer, geologist	4	7	1	3	4	1	6
Professional or technical worker	4	6	2	1	4	10	4
Artist, entertainer, musician	3	3	3	5	3	2	4
Mechanical and metal worker	3	6	0	3	2	1	2
Protective service	3	4	1	3	3	3	2
Airline stewardess, flight attendant	3	0	5	2	3	4	2

TABLE 21

PERCENTAGES OF THIRTEENS GIVING ACCEPTABLE RESPONSES
FOR WORK THEY DO AT HOME
EXERCISE 200002

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
At least one	98	97*	99*	95*	99*	97	99
At least two	95	93*	97*	91*	96*	90*	97*

TABLE 22

PERCENTAGES OF THIRTEENS WHO HAD VISITED PLACES OF INTEREST IN THE COMMUNITY, EXERCISE 200010

Response Category	Nat.	Region				Sex		Race		Parental Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Dairy	59	52	63	60	58	61	57	51*	59	60	60
Newspaper Plant	37	35	37	39	35	42*	32*	31	38*	26*	43*
Museum	92	81*	95*	94	96*	91	93	86*	93	84*	97*
Zoo	94	87*	97*	96	96	94	95	89	95	93	97*
Planetarium	59	45*	62	58	67*	60	57	44*	60	46	70
Aquarium	66	61	68	65	69	68	65	56*	69*	51*	74*
Factory	76	75	77	77	75	78*	73*	77	75	78	76
College	61	62	69*	58	57*	63	60	58	61	56*	75*
Farm	89	91	85*	95*	85*	89	89	81*	90*	90	89
Library	99	99	100*	99	99	99*	100*	99	99	99	99
Airport	92	89	93	92	91	94*	90*	86*	93*	80	97*

TABLE 23

PERCENTAGES OF THIRTEENS LISTING ACCEPTABLE RESPONSES FOR OUT-OF-SCHOOL LEARNING EXPERIENCES, EXERCISE 200016

Response Category	Nat.	Region				Sex		Race		Parental Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
One acceptable	79	79	80	77	78	75	82	69	81	69	87
Two acceptable	61	62	64	57	61	57	65	52	63	52	72
Three acceptable	42	42	43	38	44	37	46	37	43	33	52
Four acceptable	26	27	27	24	26	23	29	26	27	22	33

TABLE 24

PERCENTAGES OF THIRTEENS FOR HOUSEHOLD AND MAINTENANCE-BUILDING SKILLS CLUSTERS, EXERCISE 200019

Skills Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
HOUSEHOLD							
Babysat	80	69*	90*	77	82*	76	84*
Baked cake or pie	59	33*	83*	51*	62*	44*	65*
Changed sheets	88	80*	95*	95*	87	89	89
Cooked meals	49	29*	68*	51	50	44	54*
Knitted	37	10*	61*	35	37	31	40*
Made clothing	27	8*	45*	27	27	23	31*
Washed dishes	93	87*	98*	93	93	87	94
MAINTENANCE-BUILDING							
Built from wood	67	90*	45*	56*	70*	64	70*
Carved from wood or soap	66	71*	61*	47*	70*	60	73*
Painted an object	91	92*	89*	80*	93*	88	93*
Put batteries in a flash-light	98	99*	97*	97	98	96	98
Repaired something	78	94*	64*	75	82*	69	83*

TABLE 25

PERCENTAGES OF THIRTEENS REPORTING ON
JOB-SEEKING ACTIVITIES,
EXERCISE 200020

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Have tried to get job	59	68*	50*	64*	58	50	59
Have worked for pay	87	91*	84*	83*	89*	85	91*
Have done unpaid work	59	65*	55*	49*	61*	48	65*

TABLE 26

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES FOR NUMERICAL SKILLS
EXERCISES 301005, 301010

Response Category	Nat.	S.E.	Region West	Region Central	Region N.E.	Sex Male	Sex Female	Race Black	Race White	Parent Education No-H.S	Parent Education Post-H.S.
Bar graph problems											
Part A	95	94	94	94	96	93	96	88*	97*	91	98*
Part B	80	77	79	81	83	77*	84*	63*	84*	68*	86*
Part C	35	27*	33	38	40	34	37	9*	40*	24*	45*
Analyze floor plans											
Found correct dimensions	53	42*	52	57	62*	60*	47*	20*	59*	27*	64*
Found square feet in area	27	16*	25	31	34*	30*	24*	6*	30*	9*	37*

TABLE 27

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES FOR NUMERICAL SKILLS
EXERCISES 301011, 301014

Response Category	Nat.	S.E.	Region			Sex		Race		Parent Education	
			West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Fraction larger than .75 =	57	47*	51	63*	63*	61*	53*	27*	62*	35*	67*
30 inches =	43	33*	43	46	48	45	41	19*	47*	31*	51*
2 feet =	85	80*	85	87	88	90*	80*	52*	91*	82	92*
45 seconds =	41	28*	42	45	48	45*	37*	12*	47*	25*	53*
1 minute =	95	93	95	96	95	96*	93*	79*	97*	90	97*
16 ounces =	81	78	79	85*	80	82	80	55*	85*	71*	86*
1½ pounds =	68	63	67	72	68	70	66	32*	74*	57*	76*

TABLE 28

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES
FOR NUMERICAL SKILLS,
EXERCISE 301019

Response Category	Nat.	Region				Sex		Race		Parental Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Size 10 shoes = sock size	67	58*	63	74*	69	62*	71*	44*	72*	38*	79*

TABLE 29

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES
FOR NUMERICAL SKILLS,
EXERCISE 301032

Response Category	Nat.	Region				Sex		Race		Parental Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Money paid in finance charges =	11	9	16*	8*	13	12	11	1*	13*	5*	15*

TABLE 30

PERCENTAGES CF THIRTEENS GIVING CORRECT COMMUNICATION SKILLS
EXERCISES 302005, 302015, 302010, 302020

Response Category	Nat.	Region			Sex		Race		Parent Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Placed and added amount on order blank	62	51*	61	64	68*	57*	67*	30*	67*	38*	73*
Address on envelope	91	87*	91	93*	91	86*	95*	82*	92*	81*	94*
Use a map	82	74*	81	86*	84	82	81	50*	87*	67*	91*
Use a telephone	76	82*	76	79	69*	74*	78*	60*	79*	75	80*

TABLE 31

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES FOR MANUAL-PERCEPTUAL SKILLS,
EXERCISES 303008, 303011, 303012

Response Category	Nat.	Region			Sex		Race		Parent Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Measure line	71	64*	71	77*	70	76*	67*	47*	76*	60*	79*
Read measuring cup	76	68*	76	82*	77	77	76	48*	83*	56*	86*
Draw geometric figures	73	68	77	71	75	72	74	61*	75*	66	77*

TABLE 32

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES FOR INTERPERSONAL SKILLS, EXERCISES 305008, 305009

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Helped someone with schoolwork	94	93*	96*	90*	95*	93	96*
Helped non-English speaking person	88	87*	90	80*	90*	86	90*

TABLE 33

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES FOR EMPLOYMENT-SEEKING SKILLS, EXERCISE 306006

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
One	86	85	87	72	89	79	90
Three	79	79	80	70	81	71	82
Five	64	64	64	50	67	48	69

TABLE 34

PERCENTAGES OF THIRTEENS RESPONDING TO EACH RESPONSE CATEGORY,
ASSUME RESPONSIBILITY FOR OWN BEHAVIOR,
EXERCISE 401003

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Choice 1	11	12	10	15*	10*	14	9*
Choice 2	39	27	41	46*	38	41	38
Choice 3	23	24	23	20	24	25	22
Choice 4	23	23	22	15*	24*	18	27*

TABLE 35

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES FOR ASSUMING RESPONSIBILITY FOR OWN BEHAVIOR, EXERCISE 401009

Response Category	Nat.	Region				Sex		Race		Parental Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Assumes responsibility for injury to other person	72	70	71	73	72	74	69	61*	75*	66	79*
Appropriate reason for assuming responsibility	77	72*	78	79	77	78	76	61*	81*	64*	86*

TABLE 36

PERCENTAGES OF THIRTEENS RESPONDING TO ACCEPTABLE AND UNACCEPTABLE RESPONSES, USE INITIATIVE AND INGENUITY TO FULFILL RESPONSIBILITY, EXERCISE 403005

Response Category	Nat.	Region				Sex		Race		Parental Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Ask teacher (acceptable)	88	81*	89	90*	90	86*	90*	74*	90*	81	91*
Ask another (unacceptable)	5	6	5	5	5	6	5	10*	5*	7	4

TABLE 37

PERCENTAGES OF THIRTEENS GIVING CORRECT RESPONSES FOR RECOGNIZING BASIS OF VARIOUS ATTITUDES TOWARD WORK, EXERCISE 501009

Response Category	Nat.	Region				Sex		Race		Parental Education	
		S.E.	West	Central	N.E.	Male	Female	Black	White	No-H.S.	Post-H.S.
Two Responses	94	91*	92	95*	95	92*	95*	87*	95*	93	96*
Four Responses	76	71*	75	76	82*	77	76	64	78*	70	82*
Five Responses	58	51*	57	59	63*	59	57	42*	60*	50*	65*

TABLE 38

PERCENTAGES OF THIRTEENS GIVING ACCEPTABLE RESPONSES, WHO MAKES DECISION ABOUT KIND OF JOB, EXERCISE 503011

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Myself	75	76	74	56*	78*	64*	82*
Myself in consultation with others	2	1	3	1	2	3	2

TABLE 39

PERCENTAGES OF THIRTEENS GIVING YES RESPONSES TO SUB-PARTS,
PREFERENCE FOR LIST OF ACTIVITIES IF MILLIONAIRE
EXERCISE 503005

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Build Houses and Gardens	43	46*	40*	51*	42	39	44
Give to a Charity	85	80*	89*	80*	85	83	85
Learn New Things	87	86	88	92*	86*	90	86
Raise Race Horses	66	64	67	51*	68*	78	64
Travel	92	91	93	91	92	92	94*

TABLE 40

PERCENTAGES OF THIRTEENS RESPONDING TO EACH RESPONSE CATEGORY,
CHILD LABOR LAWS,
EXERCISE 504005

Response Category	Nat.	Sex		Race		Parental Education	
		Male	Female	Black	White	No-H.S.	Post-H.S.
Should continue Child Labor Laws	46	44	48	45	46	31*	49*
Should not continue Child Labor Laws	44	48*	41*	43	45	56	43*

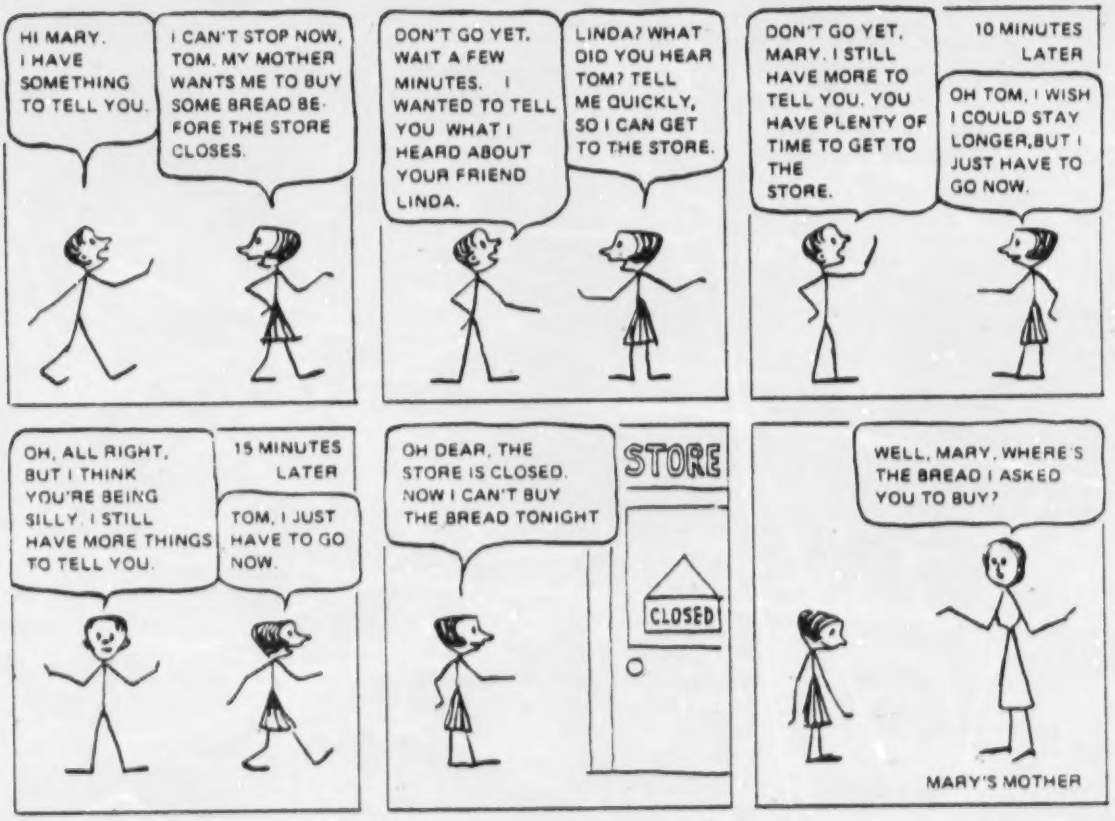
HI MARY. I HAVE SOMETHING TO TELL YOU.
I CAN'T STOP NOW, TOM. MY MOTHER WANTS ME TO BUY SOME BREAD BEFORE THE STORE CLOSES.
DON'T GO YET. WAIT A FEW MINUTES. I WANTED TO TELL YOU WHAT I HEARD ABOUT YOUR FRIEND LINDA.
LINDA? WHAT DID YOU HEAR TOM? TELL ME QUICKLY, SO I CAN GET TO THE STORE.
DON'T GO YET, MARY. I STILL HAVE MORE TO TELL YOU. YOU HAVE PLENTY OF TIME TO GET TO THE STORE.
10 MINUTES LATER
OH TOM, I WISH I COULD STAY LONGER, BUT I JUST HAVE TO GO NOW.
OH, ALL RIGHT, BUT I THINK YOU'RE BEING SILLY. I STILL HAVE MORE THINGS TO TELL YOU.
15 MINUTES LATER
TOM, I JUST HAVE TO GO NOW.
OH DEAR, THE STORE IS CLOSED. NOW I CAN'T BUY THE BREAD TONIGHT
STORE
CLOSED
WELL, MARY, WHERE'S THE BREAD I ASKED YOU TO BUY?
MARY'S MOTHER

FIGURE 1. National Assessment Geographic Regions

* U. S. GOVERNMENT PRINTING OFFICE : 1977 241-055/2071